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# LOADS OF NUTRIENTS, SEDIMENT, AND METALS TRANSPORTED FROM SELECTED SUBBASINS IN THE PAXTON CREEK WATERSHED

SUSQUEHANNA RIVER BASIN COMMISISON

PREPARED IN COOPERATION WITH THE PENNSYLVANIA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

*July 1995*

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Loads of nutrients,
sediment, and metals

# LOADS OF NUTRIENTS, SEDIMENT, AND METALS TRANSPORTED FROM SELECTED SUBBASINS IN THE PAXTON CREEK WATERSHED

PREPARED BY

Charles S. Takita
Water Quality & Monitoring Programs

Printed on recycled paper

Prepared in cooperation with the Pennsylvania Department of Environmental Protection, under contract ME92332

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*Statutory *Citations: Federal - Pub. L. 91-575, 84 Stat. 1509 (December 1970); Maryland - Natural Resources Sec. 8-301 (Michie 1974); New York - ECL Sec. 21-1301 (McKinney 1973); and Pennsylvania - 32 P.S. 820.1 (Supp. 1976).*

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# ABSTRACT

Base flow and stormflow water samples were collected from Paxton Creek near Penbrook and five smaller subbasins with different land uses in order to determine the nitrogen, phosphorus, suspended sediment, copper, lead, and zinc yields from each of the subbasins. Data were collected during calendar years 1992 and 1993. The nitrogen, phosphorus, and suspended-sediment yields from Paxton Creek near Penbrook for 1992 and 1993 were compared with the 1985-88 yields to determine if any changes in yields occurred between 1985 and 1993. Comparison of the average annual yields indicate that there was a decrease in dissolved Kjeldahl nitrogen, dissolved nitrite plus nitrate nitrogen, and suspended-sediment yields in 1992. Total ammonia nitrogen, dissolved orthophosphate, and dissolved phosphorus yields were the same in 1992 as the 1985-88 long-term mean loads reported by Ott and others (1991). Total nitrogen yields increased about 20 percent in 1992 due to an increase in particulate Kjeldahl nitrogen and total phosphorus yield increased about 45 percent. The yields of nutrients, suspended sediment and the selected metals also were compared to determine which of the land uses were contributing the highest and lowest yields. Significant differences in yields for many of the constituents were seen among the subbasins.

Long-term total nitrogen, total phosphorus and suspended-sediment yields from Ott and others (1991), for Young Womans Creek and Stony Creek, the two forested basins, Paxton Creek, Susquehanna River at Harrisburg, and Susquehanna River at Conowingo, Md., were compared. The average yield of total nitrogen from the Paxton Creek Basin was twice the yields from the forested basins, ten percent greater than the Susquehanna River at Harrisburg and almost the same as the Susquehanna River at Conowingo. Total phosphorus yields from Paxton Creek Basin were about five times the forested basins, twice the yield from the Susquehanna River at Harrisburg and 2.5 times the yield from the Susquehanna River at Conowingo. Average yields of suspended sediment were 15 times the forested basins, 7 times the Susquehanna River at Harrisburg, and 20 times the Susquehanna River at Conowingo.

# INTRODUCTION

The nutrient reduction target set for the Susquehanna River at Conowingo, Maryland, by the Chesapeake Bay Agreement of 1987 requires reductions from all controllable sources, not just from agricultural nutrient management programs. Much of the nutrient load discharged from urban and suburban areas may be controllable. Urban and suburban sources of nutrients include fertilizers applied to residential and commercial lawns and to golf courses, atmospheric deposition, and nutrients from sewage treatment plants and septic systems. The 1978 Pennsylvania Storm Water Management Act, Act 167, requires counties to develop watershed plans containing recommendations for municipal standards and criteria to control stormwater runoff. Reductions in nutrients and suspended sediment may be instituted through watershed and municipal stormwater management plans. One such plan has been developed for the Paxton Creek Watershed (Dauphin County Conservation District, 1991).

Data collected by the Susquehanna River Basin Commission (SRBC) and the U.S. Geological Survey (USGS) from 1985 through 1988 indicate that average annual nitrogen and phosphorus yields from the Paxton Creek Basin are about twice the yields observed from forested basins and that suspended-sediment yields are over ten times the yields observed from forested basins. Yields of copper, lead, and zinc from the Paxton Creek Basin were not determined during this period. Data collected, in the present project, from smaller subbasins with different land uses will be useful to identify water quality issues that may be incorporated in the Paxton Creek stormwater management plan. The data also will provide additional information about suburban nonpoint source contamination of water resources in the Susquehanna River Basin.

# PURPOSE OF THE STUDY

This study was conducted to determine yields of nitrogen, phosphorus, suspended sediment, copper, lead, and zinc from the Paxton Creek Basin during 1992 and 1993. Yields were computed for Paxton Creek near Penbrook and for five smaller subbasins that had different land uses. The objectives of this report are to: (1) compare the average annual yields of nutrients and suspended sediment from the Paxton Creek Basin during the period 1985-88 with the yields in 1992 and 1993, and (2) compare the yields of nutrients, suspended sediment, and selected metals from the subbasins to determine the effects of land use on the yields of these constituents.

# DESCRIPTION OF THE SUBBASINS

Figure 1 shows the general locations of the sampling sites. One site located on Paxton Creek and sites on five tributary subbasins were sampled to provide data for this study.

Paxton Creek near Penbrook drains an area in Dauphin County, Pennsylvania, that includes an 11.2-square-mile suburban basin upstream of the gage (01571000) at Progress Avenue that has been undergoing development for the past several years. About 58 percent of

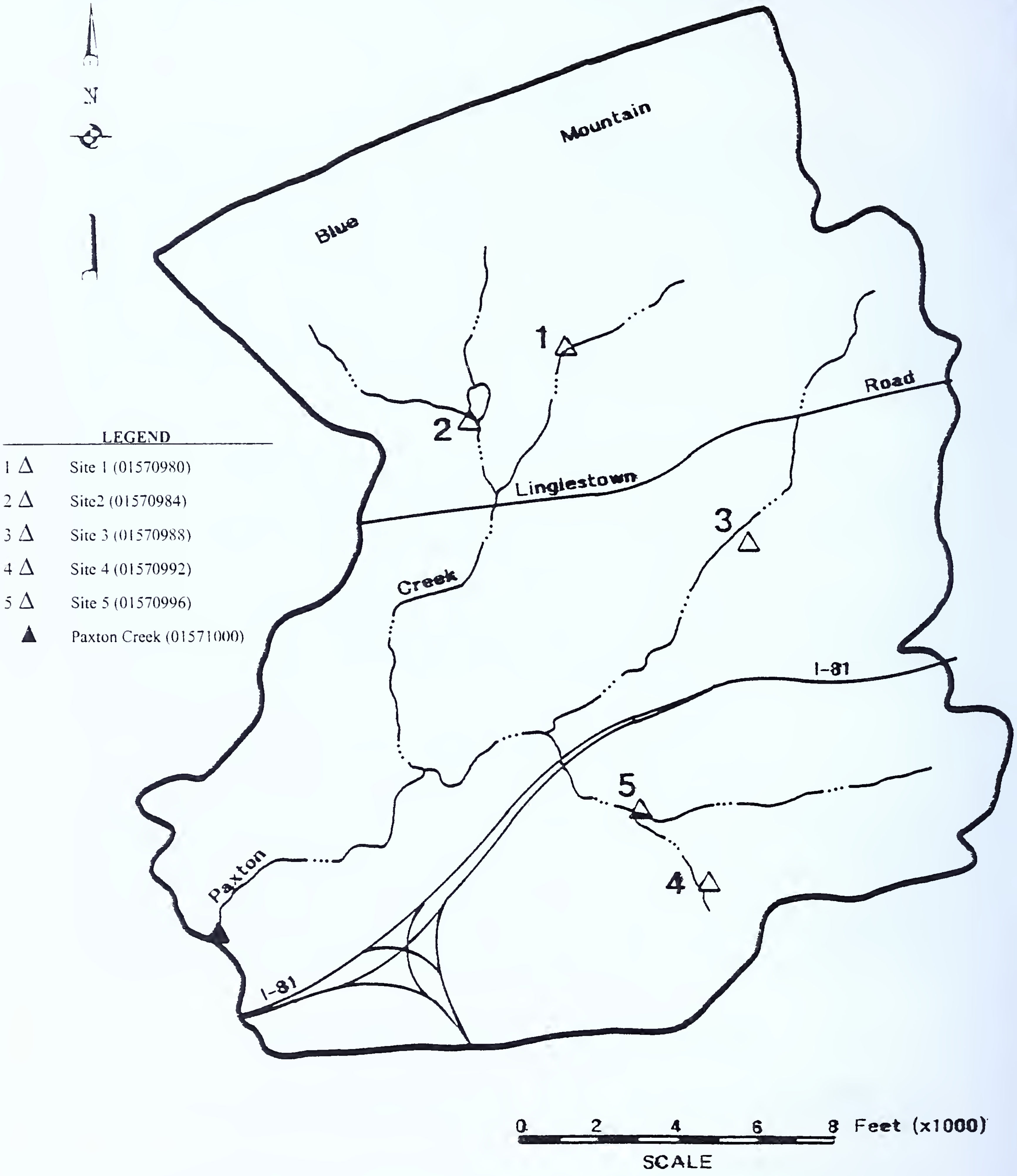

FIGURE 1. Map Showing Location of Sampling Sites

the basin is urban and suburban, 19 percent is woodland, 15 percent is idle farm land, 2 percent is cultivated, 3 percent is in golf courses, and 3 percent is streams and flood plains. Most of the sewage generated in the basin is pumped to a treatment plant outside the basin.

The five subbasins sampled are all located upstream from the Paxton Creek stream-gaging station at Progress Avenue. Each of these subbasins have different land uses.

a. Site 1, Paxton Creek tributary near Linglestown (01570980), represents a relatively *undeveloped area*. The drainage area at this site is 0.92 square mile.

b. Site 2, Paxton Creek near Linglestown (01570984), drains *a new single-family housing development*. The drainage area is 1.23 square miles.

c. Site 3, Stormwater Management Pond 1 near Linglestown (01570988), collects runoff from a 0.031-square-mile *housing development under construction*. Samples were collected at the pond outfall.

d. Site 4, Stormwater Management Pond 2 near Paxtonia (01570992), collects runoff from the parking lot of a *new shopping center*. Samples were collected at the pond outfall. The drainage area is 0.025 square mile.

e. Site 5, *Paxton Creek tributary near Paxtonia* (01570996). Much of this 1.00-square-mile drainage area has been developed for many years and includes the borough of Paxtonia.

## SAMPLE COLLECTION AND ANALYSIS

Streamflow samples were collected manually from each of the sites during the period January 4, 1992, to December 21, 1993. Samples were collected in accordance with procedures prescribed in *Quality Assurance/Quality Control Plan for Assessment of Nutrient Sources from Main Stem and Selected Watersheds in the Susquehanna River Basin*. Twenty-four samples were collected from most of the sites during non-storm periods (one sample each month) and 50 samples were collected from each of the sites during storms (five samples during each of 10 storms). Extra storm samples were collected from Paxton Creek near Penbrook utilizing an automatic sampler. These samples were analyzed for nutrients and suspended sediment; none were analyzed for metals or for oil and grease.

Temperature, pH, specific conductance, and water discharge were determined at the time of sample collection. Both whole and filtered water samples were collected and analyzed for ammonia, Kjeldahl nitrogen, nitrite plus nitrate, phosphorus, total organic carbon, oil and grease, copper, lead, zinc, and suspended sediment. Filtered water samples also were analyzed for orthophosphorus. Concentrations of nutrients, metals, and oil and grease were determined by the Pennsylvania Department of Environmental Resources Laboratory in Harrisburg. Suspended-sediment concentrations were determined by the SRBC and the USGS sediment laboratories.

# RESULTS

Summaries listing the maximum, minimum and mean concentrations found in the samples from the five subbasins and from Paxton Creek are shown in Tables 1 through 6. The results of the analysis of all samples collected from the five subbasins and from Paxton Creek are given in Tables A1 through A6 in the Appendix. Some of the mean concentrations were calculated using a log-probability regression to estimate concentrations of constituents that were reported by the laboratory as less than the reporting limit.

## Concentrations of Nutrients

### Nitrogen concentrations

Mean concentrations of total nitrogen ranged from 1.0 mg/l in the samples collected from the *undeveloped area* to 1.94 mg/l in the samples collected from Paxton Creek near Penbrook (Figure 2). Concentrations of total nitrogen averaged 1.50 mg/l in samples collected from *Paxton Creek tributary near Paxtonia*, as compared to an average of 1.30 mg/l in samples from the *new single-family housing development*. Total nitrogen concentrations in samples collected from stormwater management pond 2 at the *new shopping center* averaged 1.18 mg/l, while those in samples from stormwater management pond 1 at the *housing development under construction*, averaged 1.47 mg/l.

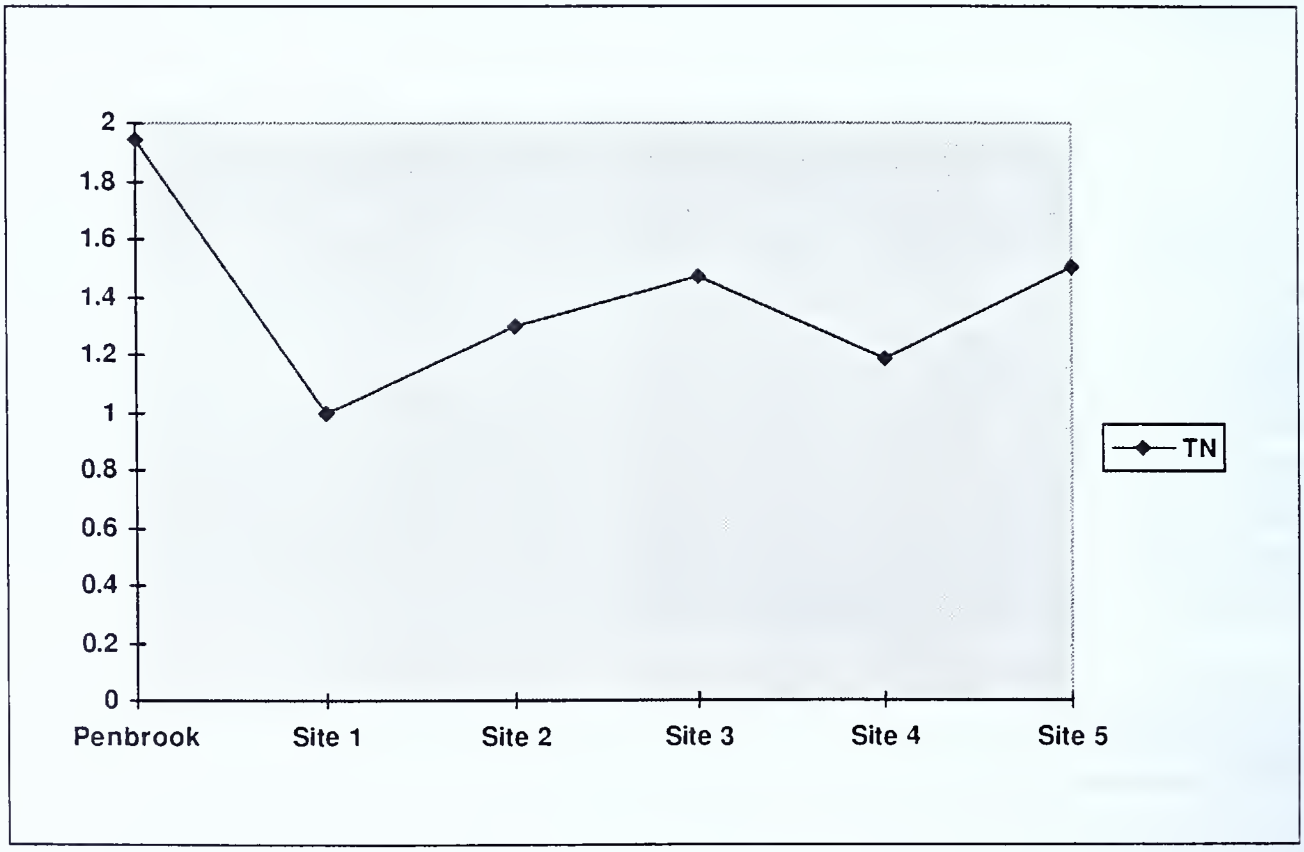

**FIGURE 2. Comparison of Mean Total Nitrogen (TN) Concentrations**

TABLE 1. Site 1, Paxton Creek Tributary Near Linglestown, Pa. (01570980), 1992-93 Data Summary

|  | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2+NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Values | 81 | 72 | 79 | 78 | 78 | 81 | 81 | 81 | 81 | 81 | 81 |
| Maximum | 23.0000 | 23.0 | 8.50 | 290.00 | 649 | 0.0900 | 0.1700 | 0.7000 | 3.0000 | 1.2700 | 3.400 |
| Minimum | 0.0000 | 0.0 | 6.80 | 102.00 | 1 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.0400 | 0.120 |
| Mean | 2.8790 | -- | -- | -- | 52 | 0.0230 | 0.0330 | 0.2200 | 0.5000 | 0.5000 | 1.000 |

|  | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Values | 81 | 81 | 81 | 81 | 78 | 80 | 81 | 80 | 81 | 80 | 81 |
| Maximum | 0.026 | 0.065 | 0.520 | 13.0000 | 0.6000 | 6.0000 | 58.0000 | 1.0000 | 55.0000 | 9.0000 | 120.0000 |
| Minimum | <0.002 | <0.020 | <0.020 | <1.0000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | <1.0000 | <1.0000 |
| Mean | 0.003 | 0.021 | 0.069 | 4.4600 | -- | 1.5400 | 3.6000 | 0.1100 | 2.4200 | 2.5600 | 8.3000 |

The mean concentrations of parameters reported by the laboratory with less than values were computed using a log-probability regression

TABLE 2. Site 2, Paxton Creek Tributary Near Linglestown, Pa. (01570984), 1992-93 Data Summary

| | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2+NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Values | 78 | 72 | 76 | 76 | 74 | 78 | 78 | 78 | 78 | 78 | 78 |
| Maximum | 104.0000 | 22.5 | 8.60 | 480 | 934 | 0.1300 | 0.2700 | 2.1000 | 2.2000 | 1.6500 | 3.100 |
| Minimum | 0.1300 | 0 | 6.50 | 105 | 0 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.1500 | 0.250 |
| Mean | 8.7500 | -- | -- | -- | 74 | 0.0350 | 0.0460 | 0.3000 | 0.5800 | 0.6900 | 1.300 |

| | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Value | 78 | 78 | 78 | 78 | 76 | 78 | 78 | 78 | 78 | 78 | 78 |
| Maximum | 0.067 | 0.111 | 0.720 | 13.0000 | 2.5000 | 6.0000 | 11.0000 | 3.0000 | 10.0000 | 31.0000 | 260.0000 |
| Minimum | <0.002 | <0.020 | 0.020 | 1.2000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | <1.0000 | 1.2400 |
| Mean | 0.008 | 0.031 | 0.092 | 4.3800 | -- | 1.5300 | 2.7800 | 0.15600 | 1.5300 | 6.5400 | 30.1000 |

The mean concentrations of parameters reported by the laboratory with less than values were computed using a log-probability regression

TABLE 3. Site 3, Stormwater Management Pond No. 1 Near Linglestown, Pa. (01570988), 1992-93 Data Summary

| | Discharge, Instantaneous cubic ft per sec. (00061) | Temper-ature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conduct-ance µs/cm (00095) | Sus-pended Sedi-ment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Values | 62 | 55 | 61 | 61 | 60 | 62 | 62 | 62 | 62 | 62 | 62 |
| Maximum | 0.5600 | 25.0 | 8.70 | 84.00 | 481 | 0.4200 | 0.6200 | 1.1000 | 3.3000 | 0.8400 | 3.300 |
| Minimum | 0.0000 | 0.5 | 6.80 | 61.00 | 12 | <0.0200 | <0.0200 | <0.2000 | 0.4400 | 0.0400 | 0.630 |
| Mean | 0.9500 | -- | -- | -- | 144 | 0.0760 | 0.1470 | 0.4160 | 1.2100 | 0.2570 | 1.470 |

| | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Values | 62 | 62 | 62 | 62 | 61 | 62 | 61 | 62 | 62 | 62 | 62 |
| Maximum | 0.097 | 0.150 | 0.530 | 42.0000 | 3.8000 | 3.0000 | 60.0000 | 9.0000 | 58.0000 | 62.0000 | 199.0000 |
| Minimum | <0.002 | 0.011 | 0.050 | 1.8000 | <0.5000 | <0.8000 | 1.1300 | <0.2000 | 0.6210 | <1.0000 | 24.9000 |
| Mean | -- | 0.033 | 0.231 | 10.1000 | -- | 1.3100 | 5.6700 | 0.6130 | 4.7900 | 5.5700 | 79.2000 |

The mean concentrations of parameters reported by the laboratory with less than values were computed using a log-probability regression

TABLE 4. Site 4, Stormwater Management Pond No. 2 Near Paxtonia, Pa. (01570992), 1992-93 Data Summary

| | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Values | 60 | 56 | 59 | 60 | 58 | 60 | 60 | 60 | 60 | 60 | 60 |
| Maximum | 0.9500 | 23.0 | 8.50 | 935.00 | 235 | 0.4200 | 0.4700 | 0.8700 | 1.3000 | 1.7600 | 2.200 |
| Minimum | 0.0000 | 2.0 | 6.60 | 47.00 | 1 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | <0.4000 | 0.120 |
| Mean | 0.2160 | -- | -- | -- | 30.4 | 0.0980 | 0.1120 | 0.2930 | 0.4390 | 0.7301 | 1.180 |

| | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Values | 60 | 60 | 60 | 60 | 59 | 60 | 60 | 60 | 60 | 60 | 60 |
| Maximum | 0.057 | 0.099 | 0.330 | 11.0000 | 2.2000 | 4.0000 | 8.0000 | 2.0000 | 16.0000 | 630.0000 | 1,030.0000 |
| Minimum | <0.002 | <0.020 | <0.020 | 1.0000 | <0.5000 | <0.8000 | <0.800 | <0.2000 | <0.2000 | 34.9000 | 52.6000 |
| Mean | 0.004 | 0.024 | 0.055 | 3.6000 | -- | 1.1000 | 2.0700 | 0.1170 | 1.730 | 176.0000 | 254.0000 |

The mean concentrations of parameters reported by the laboratory with less than values were computed using a log-probability regression

# TABLE 5. Site 5, Paxton Creek Tributary Near Paxtonia, Pa. (01570996), 1992-93 Data Summary

| | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Values | 78 | 72 | 76 | 75 | 74 | 78 | 78 | 78 | 78 | 78 | 78 |
| Maximum | 40.0000 | 23 | 8.50 | 705.00 | 1,270 | 0.2900 | 0.2900 | 0.7900 | 4.4000 | 2.6400 | 5.100 |
| Minimum | 0.0500 | 0.0 | 6.80 | 124.00 | 1 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.1500 | 0.300 |
| Mean | 5.4500 | -- | -- | -- | 92 | 0.0510 | 0.0570 | 0.2920 | 0.6320 | 0.8560 | 1.500 |

| | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Values | 78 | 78 | 78 | 78 | 76 | 78 | 78 | 77 | 78 | 78 | 78 |
| Maximum | 0.073 | 0.109 | 0.970 | 14.0000 | 3.0000 | 4.0000 | 33.0000 | 7.0000 | 64.0000 | 23.0000 | 340.0000 |
| Minimum | <0.002 | <0.002 | 0.020 | 1.3000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 1.1100 | 1.1100 |
| Mean | 0.010 | 0.032 | 0.121 | 4.2100 | -- | 1.4100 | 3.8700 | 0.2080 | 6.2700 | 6.1800 | 36.2000 |

The mean concentrations of parameters reported by the laboratory with less than values were computed using a log-probability regression

TABLE 6. Paxton Creek Near Penbrook, Pa. (01571000), 1992-93 Data Summary

| | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Values | 220 | 85 | 106 | 14 | 209 | 120 | 120 | 120 | 120 | 117 | 117 |
| Maximum | 1,900.0000 | 25.0 | 8.60 | 473.00 | 3,270 | 0.2700 | 0.2700 | 1.3000 | 8.8000 | 2.1100 | 10.000 |
| Minimum | 1.3000 | 0.5 | 6.80 | 140.00 | 1 | -- | -- | -- | -- | 0.2400 | 0.470 |
| Mean | 269.0000 | -- | -- | -- | 473 | 0.0440 | 0.0600 | 0.3720 | 1.0100 | 0.9300 | 1.940 |

| Date | Time | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Values | | 60 | 119 | 120 | 120 | 73 | 73 | 73 | 72 | 73 | 73 | 73 |
| Maximum | | 0.310 | 0.340 | 2.200 | 13.0000 | 9.1000 | 5.0000 | 24.0000 | 6.0000 | 63.0000 | 28.0000 | 200.0000 |
| Minimum | | 0.002 | 0.010 | 0.020 | 1.3000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | <1.000 | 2.0000 |
| Mean | | 0.022 | 0.040 | 0.239 | 5.1100 | -- | 1.4100 | 3.9700 | 0.3470 | 6.1900 | 4.070 | 31.5000 |

The mean concentrations of parameters reported by the laboratory with less than values were computed using a log-probability regression

### Total phosphorus concentrations

Mean concentrations of total phosphorus ranged from 0.055 mg/l in samples collected from stormwater management pond 2 at the *new shopping center* to 0.239 mg/l in samples collected from Paxton Creek near Penbrook (Figure 3). Total phosphorus concentrations in samples collected at the *undeveloped area* averaged 0.069 mg/l, as compared to average concentrations of 0.092 mg/l and 0.121 mg/l in samples collected from the *new single-family housing development*, and *Paxton Creek tributary near Paxtonia*, respectively. Concentrations in samples collected at stormwater management pond 1 at the *housing development under construction*, averaged 0.231 mg/l.

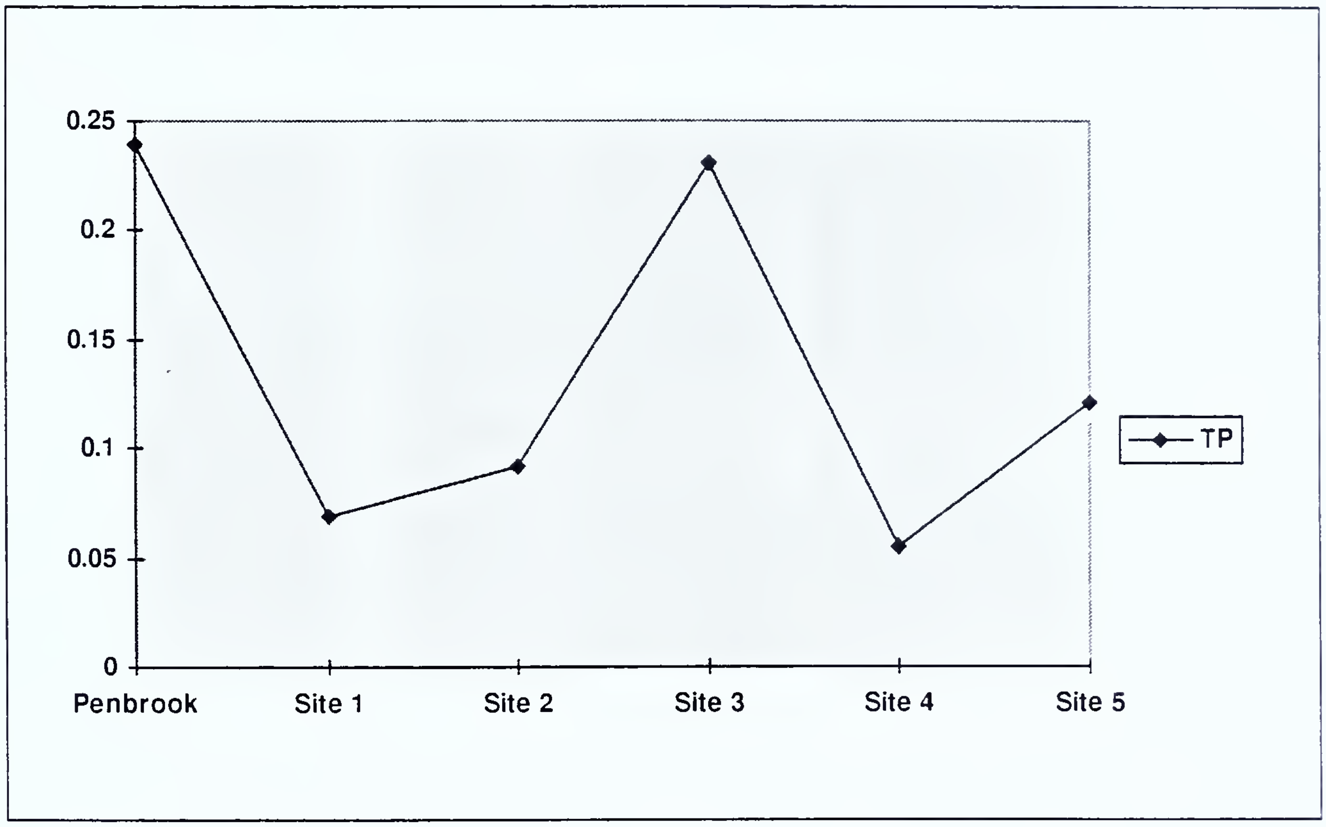

**FIGURE 3. Comparison of Mean Total Phosphorus (TP) Concentrations**

### Suspended-sediment concentrations

Mean concentrations of suspended sediment ranged from 30 mg/l in samples collected at the stormwater management pond 2 at the *new shopping center* to 473 mg/l in the samples collected from Paxton Creek near Penbrook as illustrated in Figure 4. Samples collected at the *undeveloped area*, had a mean suspended-sediment concentration of 52 mg/l and samples collected at the *new single-family housing development* had a mean sediment concentration of 74 mg/l. Samples collected at the stormwater management pond 1 at the *housing development under construction* had a mean suspended-sediment concentration of 144 mg/l, and those collected from the *Paxton Creek tributary near Paxtonia* had a mean concentration of 92 mg/l.

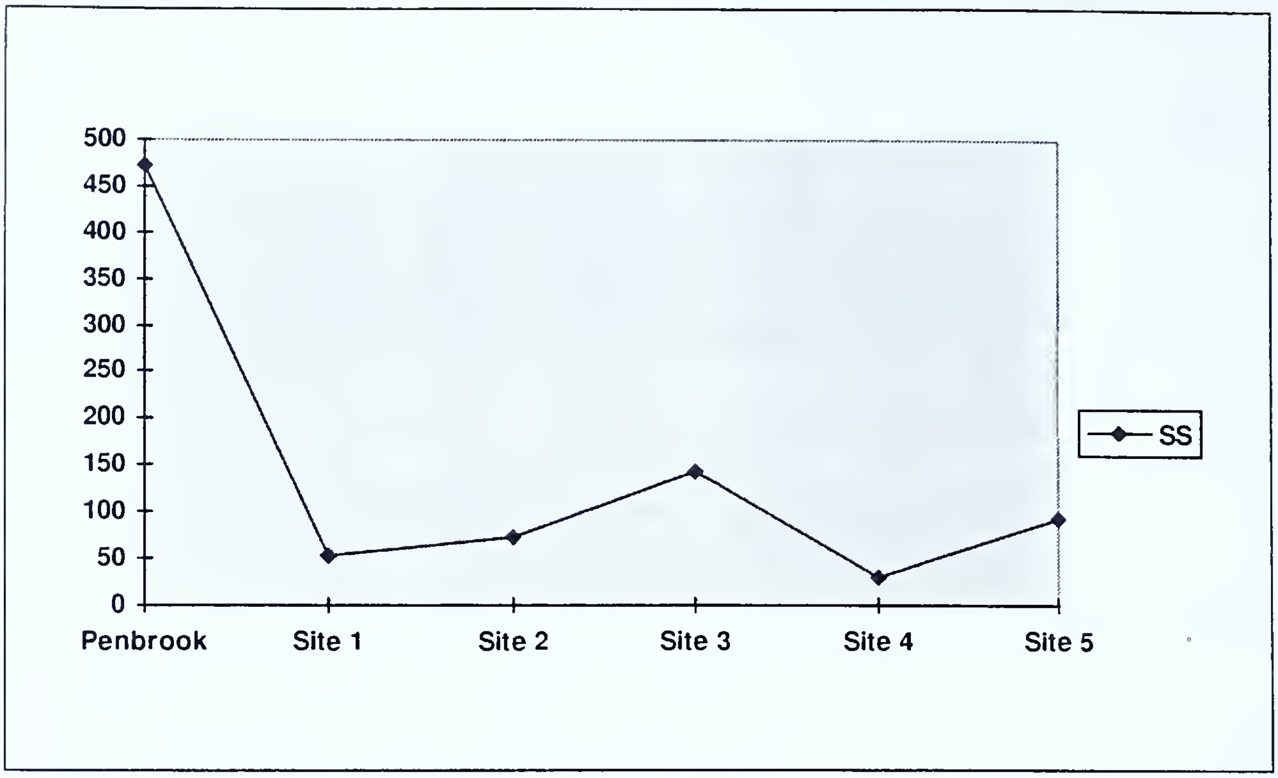

**FIGURE 4. Comparison of Mean Suspended Sediment (SS) Concentrations**

Maximum suspended-sediment concentrations (Figure 5) in the stream draining *the undeveloped area* and in the stream draining the *new single-family housing development* were 649 mg/l and 934 mg/l, respectively. Maximum concentrations were smallest in samples collected below the stormwater management pond 1 at the *housing development under construction* and below the stormwater management pond 2 at the *new shopping center*, 481 mg/l and 235 mg/l, respectively. The largest maximum suspended-sediment concentrations were measured in samples collected from the *Paxton Creek tributary near Paxtonia* and in samples collected from Paxton Creek near Penbrook, 1,270 mg/l and 3,270 mg/l, respectively.

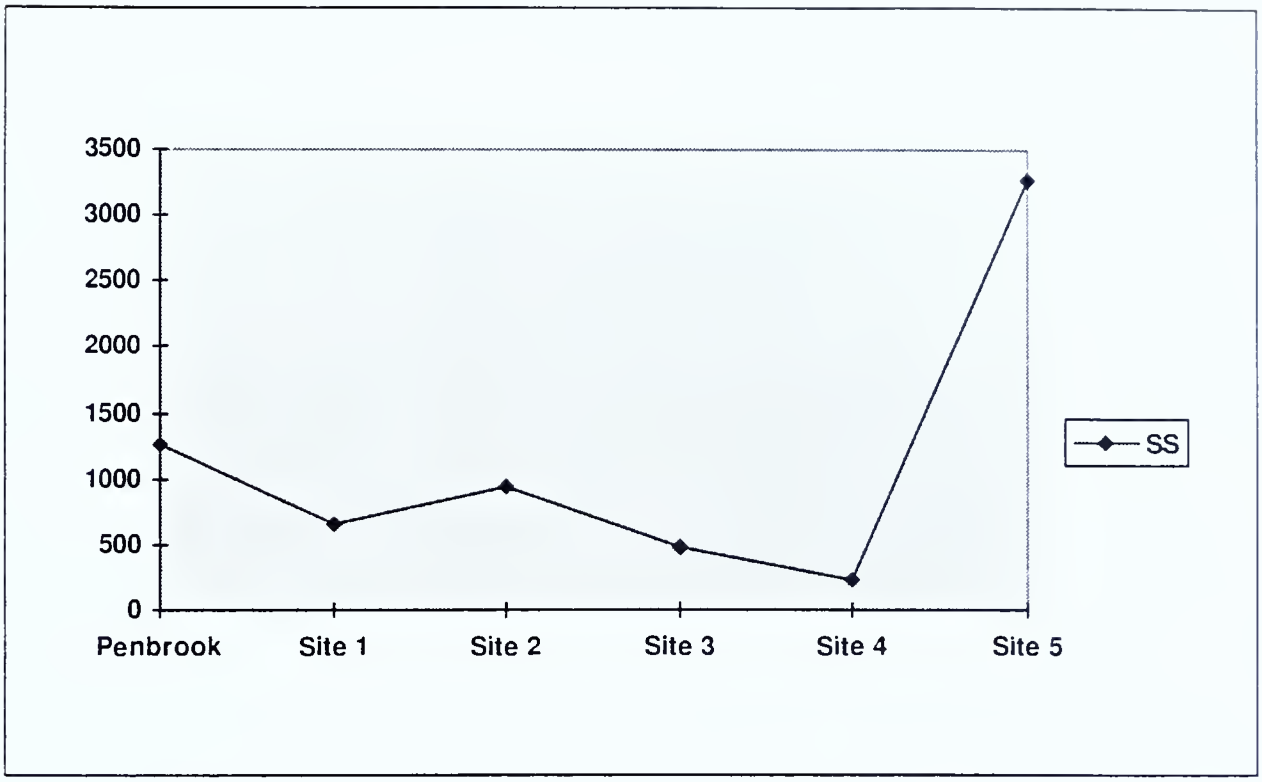

**FIGURE 5. Comparison of Maximum Suspended Sediment (SS) Concentrations**

### Oil and grease concentrations

Laboratory results indicated that most of the samples collected for oil and grease analysis had concentrations below the minimum reporting limit of 0.50 mg/l. Only 3 of 78 samples collected from the *undeveloped area*, had concentrations of 0.50 mg/l or higher. Reportable concentrations were detected in 9 of 76 samples collected from the *new single-family housing development*; in 11 of 61 samples collected below the stormwater management pond 1 at the *housing development under construction* and in 13 of 59 samples collected from the stormwater management pond 2 at the *new shopping center.* Samples collected from *the Paxton Creek tributary near Paxtonia* had oil and grease concentrations of 0.5 mg/l or higher in 15 of 76 samples and only 14 of 73 samples from Paxton Creek near Penbrook had concentrations higher than the reporting limit of 0.5 mg/l.

## Concentrations of Metals

### Copper concentrations

Mean concentrations of total copper shown in Figure 6 ranged from 2.1 µg/l in samples collected below the stormwater management pond 2 at the *new shopping center* to 5.7 µg/l in samples collected below the stormwater management pond 1 at the *housing development under construction.* Concentrations in samples collected from the stream draining the *undeveloped area* averaged 3.6 µg/l and concentrations in samples collected from the stream draining the *new single-family housing development* averaged 2.8 µg/l. Total copper concentrations in samples from the *Paxton Creek tributary near Paxtonia* and Paxton Creek near Penbrook were 3.87 µg/l and 3.97 µg/l, respectively. Dissolved copper concentrations were generally about a third of the total concentrations. The minimum copper concentration that could be detected by the laboratory was 0.80 µg/l and the minimum reporting value was 4.0 µg/l. Copper concentrations listed in Tables 1 through 6 that are smaller than 4.0 µg/l should be considered less precise than those concentrations that are reported as being over 4.0 µg/l

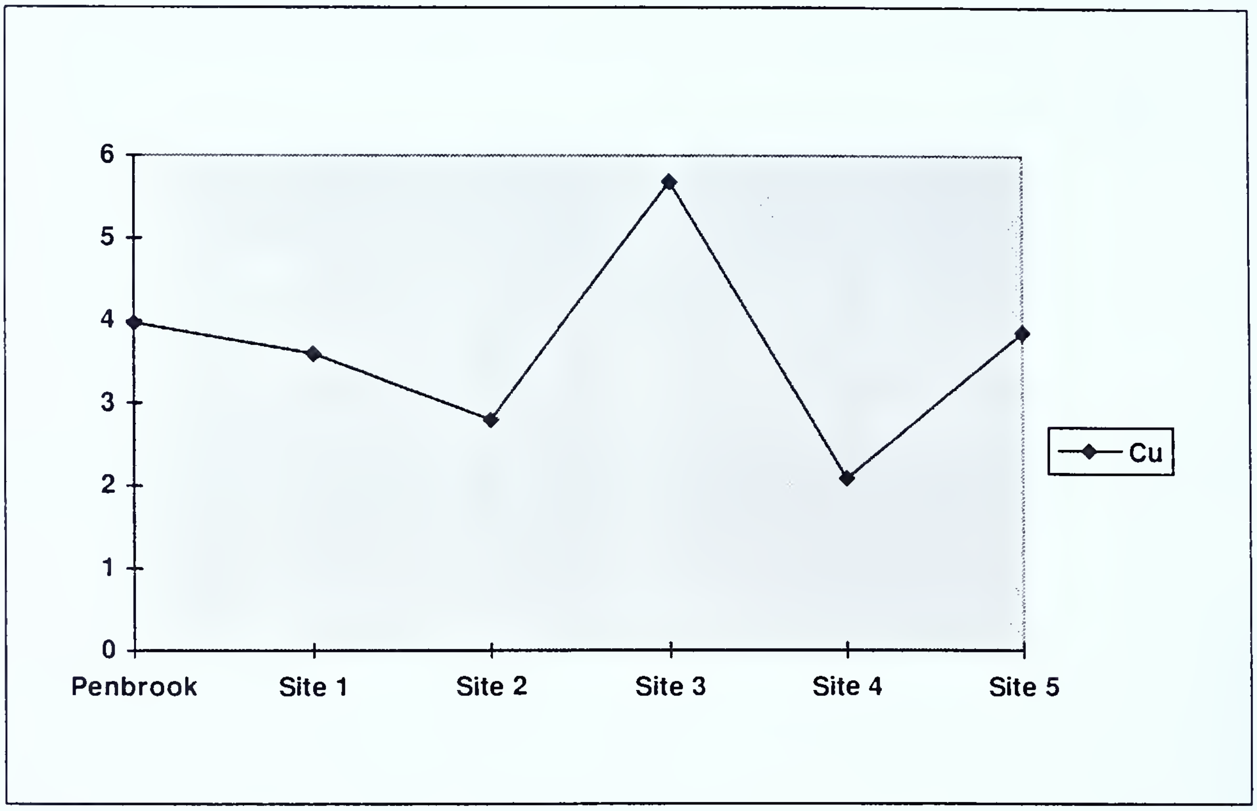

**FIGURE 6. Comparison of Mean Total Copper (Cu) Concentrations**

### Lead concentrations

Mean concentrations of total lead (Figure 7) were smallest in samples collected from the stream draining the *new single-family housing development* and the stormwater management pond 2 at the *new shopping center*, 1.5 µg/l and 1.7 µg/l, respectively. Mean concentrations of total lead in samples collected from the stream draining the *undeveloped area*, the stormwater management pond 1 at the *housing development under construction*, the *Paxton Creek tributary near Paxtonia*, and in Paxton Creek near Penbrook were 2.4 µg/l, 4.79 µg/l, 6.3 µg/l and 6.2 µg/l, respectively. Concentrations of dissolved lead were about a tenth of the concentration of total lead. Mean dissolved lead concentrations were highest in samples collected from the stream draining the stormwater management pond 1 at the *housing development under construction* (0.61 µg/l) and in the samples collected from Paxton Creek near Penbrook (0.35 µg/l). The minimum concentration of lead that could be detected by the laboratory was 0.20 µg/l and the minimum reporting value was 1.5 µg/l.

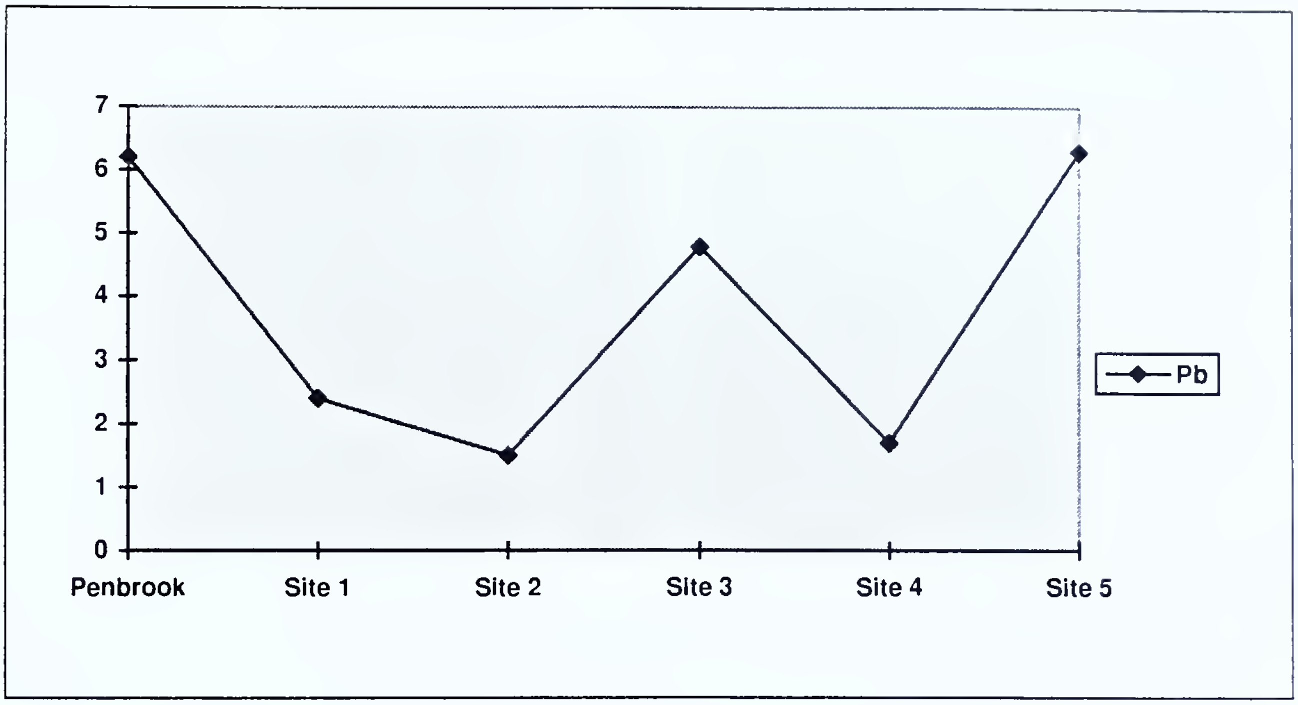

**FIGURE 7. Comparison of Mean Total Lead (Pb) Concentrations**

### Zinc

Mean concentrations of total zinc varied widely among the basinsas illustrated in Figure 8. The largest concentrations of total zinc were detected in samples collected at stormwater management pond 2 at the *new shopping center* and the smallest concentrations were detected in samples collected below the *undeveloped area.* The mean concentration of total zinc ranged from 254 µg/l in the discharge from the stormwater management pond 2 at the *new shopping center* to 8.30 µg/l in samples collected from the stream draining the *undeveloped area.* The mean concentration of total zinc in samples collected from the stormwater management pond 1 at *the housing development under construction* was 79.2 µg/l. Mean concentrations of total zinc in samples collected from the *new single-family housing development*, from the *Paxton Creek tributary near Paxtonia*, and from Paxton Creek near Penbrook were 30.1 µg/l, 36.2 µg/l, and 31.5 µg/l, respectively. The minimum concentration of total zinc that could be detected by the laboratory was 1.0 µg/l and the minimum reporting level was 5.0 µg/l.

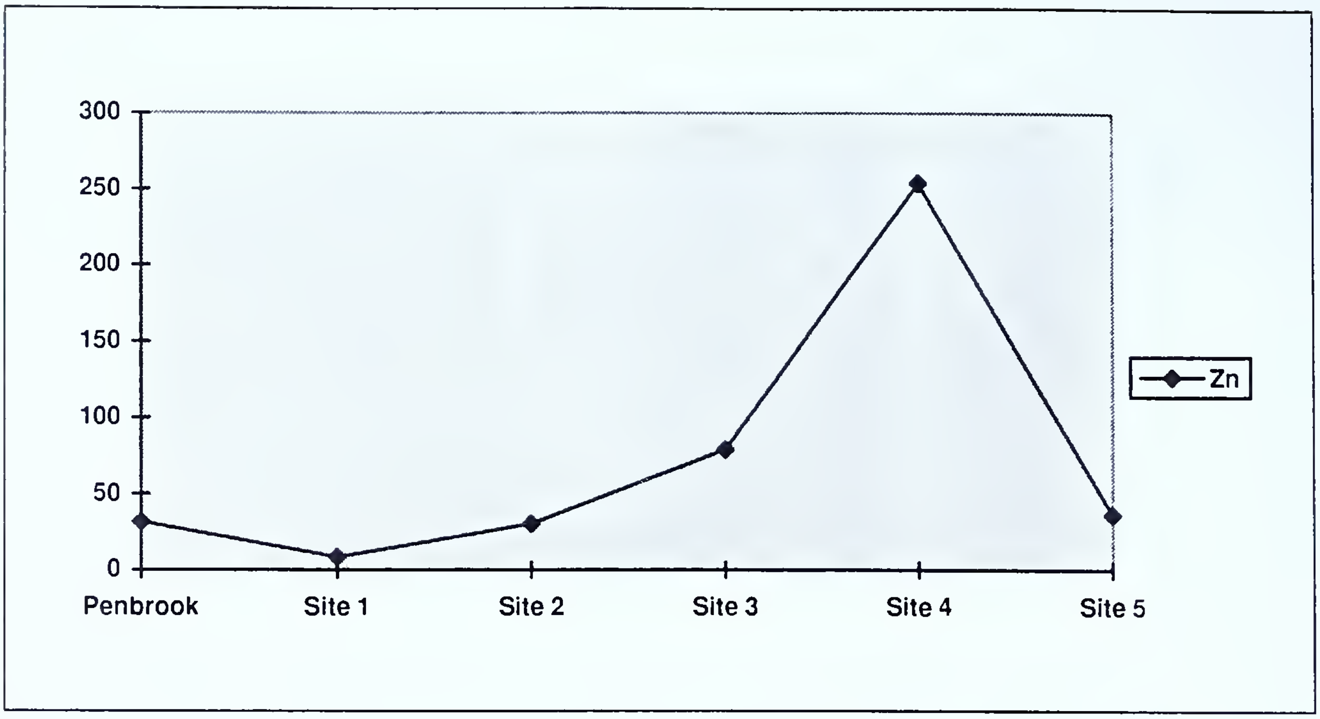

**FIGURE 8. Comparison of Mean Total Zinc (Zn) Concentrations**

## Calculation of Loads and Yields

Loads of nutrients, suspended sediment, copper, lead, and zinc transported by Paxton Creek near Penbrook during 1992 and 1993 were calculated using the same 7-parameter log-linear model (Cohn and others, 1989) that was used to compute loads of nutrients and suspended sediment transported during 1985 through 1988 (Ott and others, 1991). The 1985-88 loads from the Paxton Creek Basin were computed using water quality data collected from 1985 through 1988 and the daily mean water discharges measured during the same 4-year period. The loads for 1992 and 1993 were computed using water quality data collected during 1992 and 1993 and the daily mean water discharges measured during the same 2-year period.

Loads transported from the five subbasins upstream of Paxton Creek near Penbrook were computed using water quality data collected from the stream draining each of the five subbasins and estimated values of daily mean water discharge. Daily mean water discharges were not recorded from the subbasins because of the cost of installing and operating continuous recording gages. However, an instantaneous water discharge was determined each time a water quality sample was collected. These instantaneous values were compared to the corresponding instantaneous values recorded by the gage on Paxton Creek near Penbrook. The relationship between instantaneous water discharge from the subbasins and instantaneous water discharge at the gage was, generally, directly proportional to the ratio of drainage areas between the sites. Consequently, daily mean discharges from the subbasins were estimated by multiplying the daily mean values at the gage by the ratio of drainage areas for each of the sites. Yields from the Paxton Creek Basin upstream of Progress Avenue and the yields from the subbasins were computed by dividing the loads by the respective drainage area. Since yields can be more easily compared, they are presented in this report. Loads from a given area can be computed by multiplying the yield by the drainage area.

## Long-Term Yields of Nutrients and Suspended Sediment

Long-term total nitrogen (TN), total phosphorus (TP), and suspended-sediment (SS) yields from Ott and others (1991) are listed in Table 7 and shown in Figures 9 and 10 for Young Womans Creek (YWC) and Stony Creek (SC), the two forested basins, Paxton Creek (PC), the Susquehanna River at Harrisburg (SRH), Pa., and for the Susquehanna River at Conowingo (SRC), Md.

TABLE 7. Average Annual Yields of Nitrogen, Phosphorus, and Suspended Sediment for Selected Sites in the Susquehanna River Basin, Based on Data Collected at Various Times From 1985 Through 1989

| Basin | Nitrogen, Total | Phosphorus, Total | Suspended Sediment |
|---|---|---|---|
| | pounds per acre per year | | |
| Young Womans Creek | 3.16 | 0.06 | 188 |
| Stony Creek | 3.96 | 0.23 | 109 |
| Paxton Creek | 8.12 | 0.71 | 2,270 |
| Susquehanna River above Harrisburg | 7.38 | 0.42 | 311 |
| Susquehanna River above Conowingo | 8.47 | 0.30 | 102 |

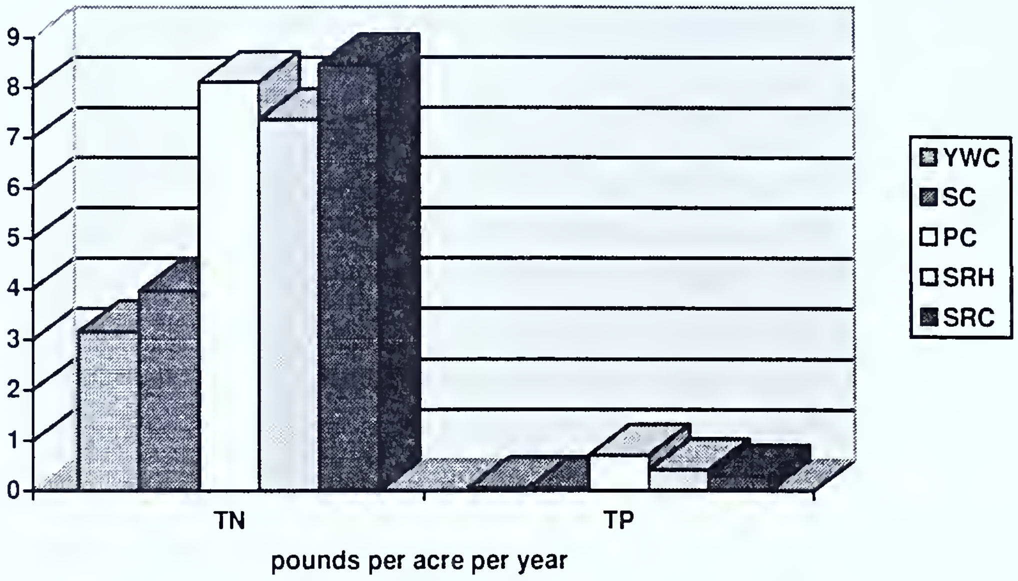

**FIGURE 9. Average Annual Yields of Total Nitrogen and Total Phosphorus for Selected Sites in the Susquehanna River Basin, 1985-88**

From Table 7 and Figure 9, the average yields of nitrogen from the Paxton Creek (PC) Basin, based on 1985-88 data, were about twice the yields from the forested basins (YWC and SC), about 10 percent greater than the yields from the Susquehanna River above Harrisburg (SRH), Pa., and almost the same as the yields from the Susquehanna River above Conowingo (SRC), Md. Average yields of total phosphorus from the Paxton Creek Basin were about five times the yields from the forested basins, about twice the yields from the Susquehanna River Basin above Harrisburg and about 2.5 times the yield at Conowingo.

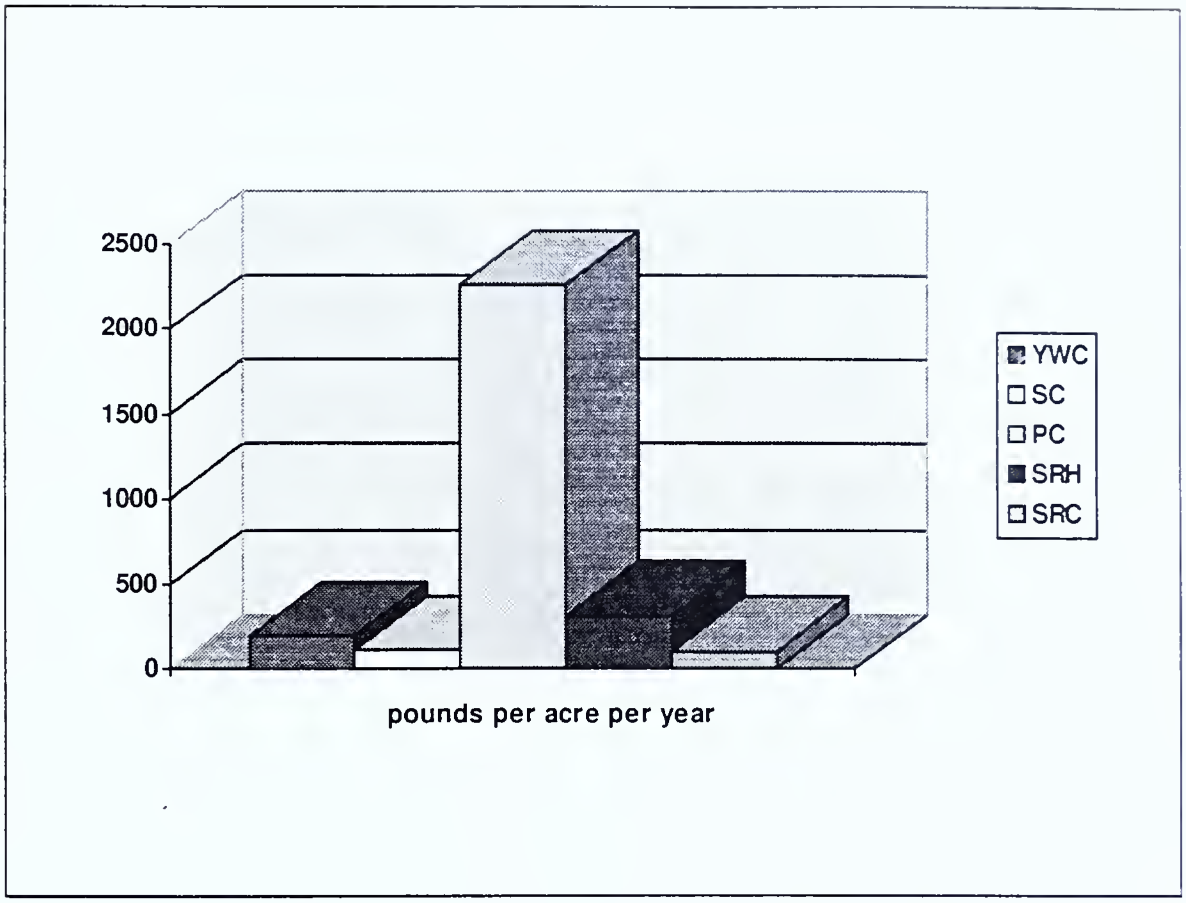

**FIGURE 10. Average Annual Yields of Suspended Sediment for Selected Sites in the Susquehanna River Basin, 1985-88**

Average yields of suspended sediment from Paxton Creek (Figure 10) were about 15 times the yields from the forested areas, about seven times the yields from the Susquehanna River Basin upstream from Harrisburg and about 20 times the yield from Conowingo.

## Trends in Yields from the Paxton Creek Basin

Yields of nutrients, suspended sediment, copper, lead, and zinc from the Paxton Creek near Penbrook are listed on Table 8 for each of the years from 1985-88 and for the years 1992-93. The table also lists the mean annual water discharge for each of the years in cubic feet per second per square mile, as well as the long-term mean water discharge and the long-term (1985-88 based) mean nutrient and suspended-sediment yields (Ott and others, 1991).

The yields listed in Table 8 for 1992 can be assumed to be fairly representative of long-term mean annual yields (1985-88 based) because the yearly water discharge at Paxton Creek near Penbrook for 1992 was equal to the long-term mean. Figures 11 provides comparisons of the long-term and 1992 mean water discharges and yields of some of the nutrients listed in Table 8. A comparison of the suspended sediment yields is shown in Figure 12.

TABLE 8. Yields of Nitrogen, Phosphorus, and Suspended Sediment From Paxton Creek Near Penbrook, Pa. (01571000), 1985-88 and 1992-93

| Calender Year | Mean Discharge | Suspended Sediment | Nitrogen, Ammonia, Dissolved | Nitrogen, Ammonia, Total | Nitrogen, Kjeldahl Dissolved | Nitrogen, Kjeldahl Total | Nitrogen, $NO_2$+$NO_3$, Dissolved | Nitrogen, Total |
|---|---|---|---|---|---|---|---|---|
|  | $ft^3/sec/mi^2$ | pounds per acre per year |  |  |  |  |  |  |
| 1985 | 0.75 | 531 |  | 0.162 | 1.01 | 2.67 | 1.95 | 4.62 |
| 1986 | 1.36 | 2,210 |  | 0.285 | 2.33 | 4.36 | 3.86 | 8.42 |
| 1987 | 1.38 | 3,350 |  | 0.368 | 2.03 | 4.54 | 4.21 | 8.75 |
| 1988 | 1.27 | 1,440 |  | 0.215 | 1.15 | 3.38 | 4.37 | 7.75 |
| Long-term yields (based on 1985-88 data) | 1.30 | 2,270 |  | 0.283 | 1.79 | 4.00 | 4.15 | 8.12 |
| 1992 | 1.30 | 2,020 | 0.179 | 0.236 | 1.45 | 5.79 | 3.99 | 91.78 |
| 1993 | 2.04 | 2,200 | 0.244 | 0.337 | 2.55 | 6.66 | 5.54 | 12.20 |

| Calendar Year | Phosphorus Ortho, Dissolved | Phosphorus, Dissolved | Phosphorus, Total | Carbon, Organic, Total | Oil and Grease Total Recov. Total | Copper, Dissolved | Copper, Total | Lead, Dissolved | Lead, Total | Zinc, Dissolved | Zinc, Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  | pounds per acre per year |  |  |  |  |  |  |  |  |  |  |
| 1985 | 0.0380 | 0.040 | 0.165 |  |  |  |  |  |  |  |  |
| 1986 | 0.0660 | 0.144 | 0.705 |  |  |  |  |  |  |  |  |
| 1987 | 0.0720 | 0.224 | 1.030 |  |  |  |  |  |  |  |  |
| 1988 | 0.0330 | 0.128 | 0.455 |  |  |  |  |  |  |  |  |
| Long-term yields (based on 1985-88 data) | 0.0560 | 0.162 | 0.713 |  |  |  |  |  |  |  |  |
| 1992 | 0.0596 | 0.155 | 1.04 0 | 20.7 |  | 0.0071 | 0.0262 | 0.0023 | 0.0402 | 0.0217 | 0.222 |
| 1993 | 0.0762 | 0.225 | 1.530 | 33.5 |  | 0.0131 | 0.0451 | 0.0041 | 0.0709 | 0.0235 | 0.252 |

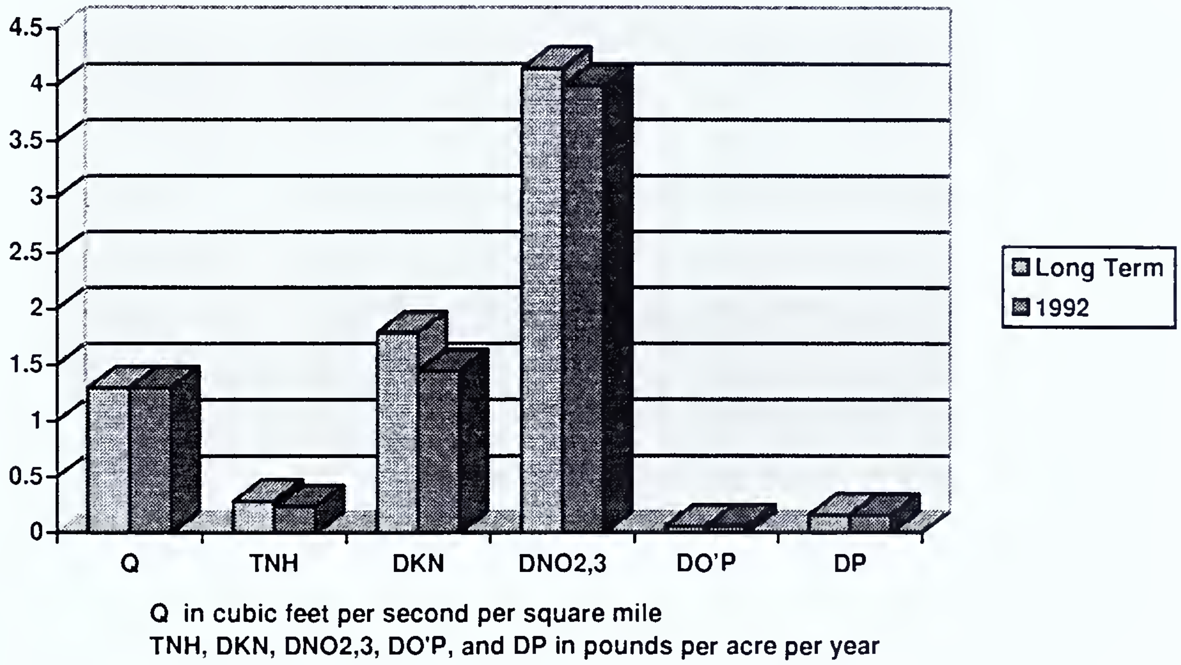

**FIGURE 11.** **Comparison of Discharge and Total Ammonia (TNH), Dissolved Kjeldahl Nitrogen (DKN), Dissolved Nitrite Plus Nitrate (DNO2,3), Dissolved Orthophosphate (DO'P) and Dissolved Phosphorus (DP) Yields From the Paxton Creek Basin, 1985-88 and 1992-93**

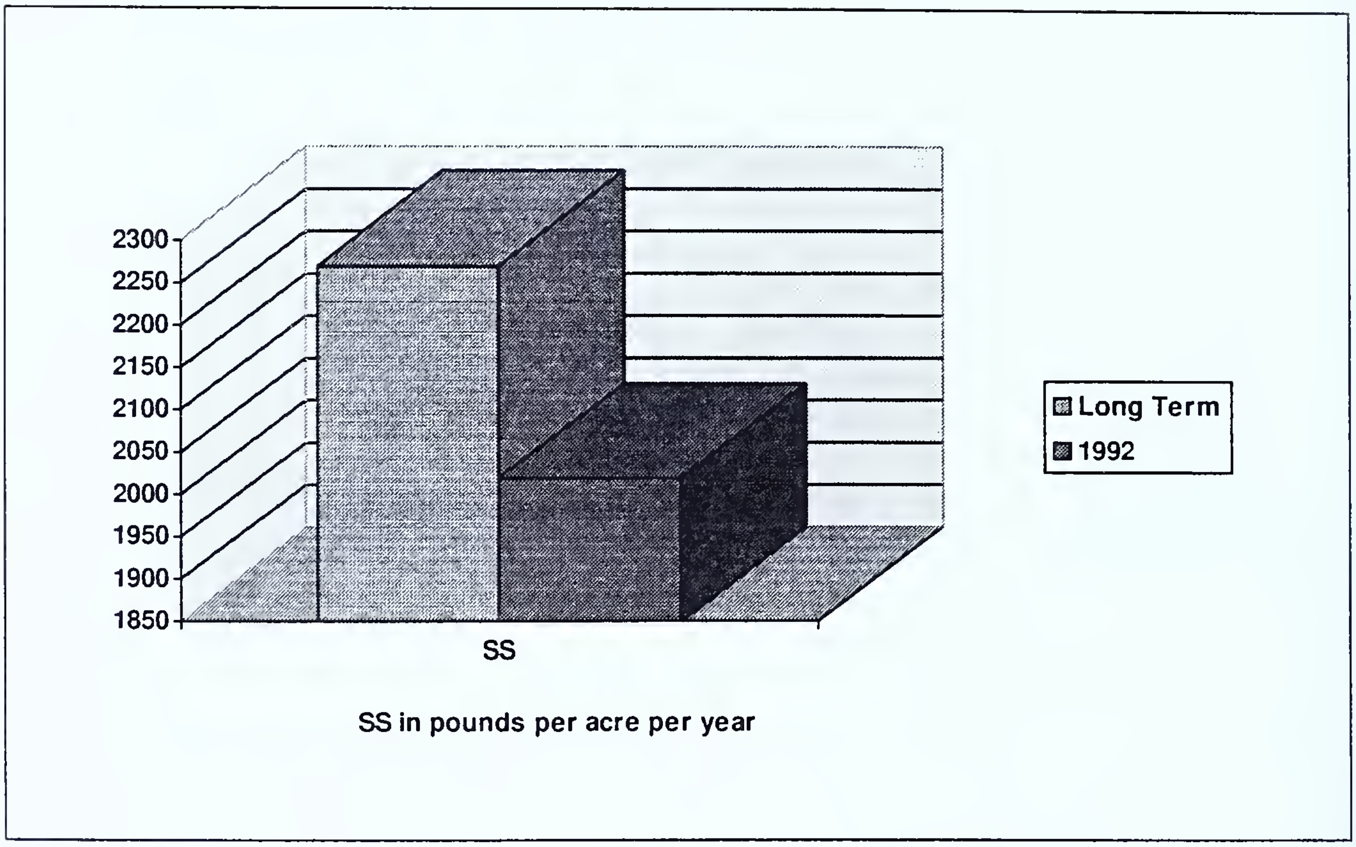

FIGURE 12. Comparison of Suspended Sediment Yield From Paxton Creek Near Penbrook, 1985-88 and 1992-93

Dissolved Kjeldahl nitrogen (DKN), total ammonia (TNH), dissolved nitrite plus nitrate nitrogen (DNO2,3), and suspended-sediment (SS) yields show a decrease in 1992. Yields of dissolved orthophosphorus (DO'P) and dissolved phosphorus (DP) from the Paxton Creek Basin were about the same in 1992 as the 1985-88 based long-term mean loads reported by Ott and others, 1991

Figure 13 illustrates an increase in the yield of total nitrogen and total phosphorus.

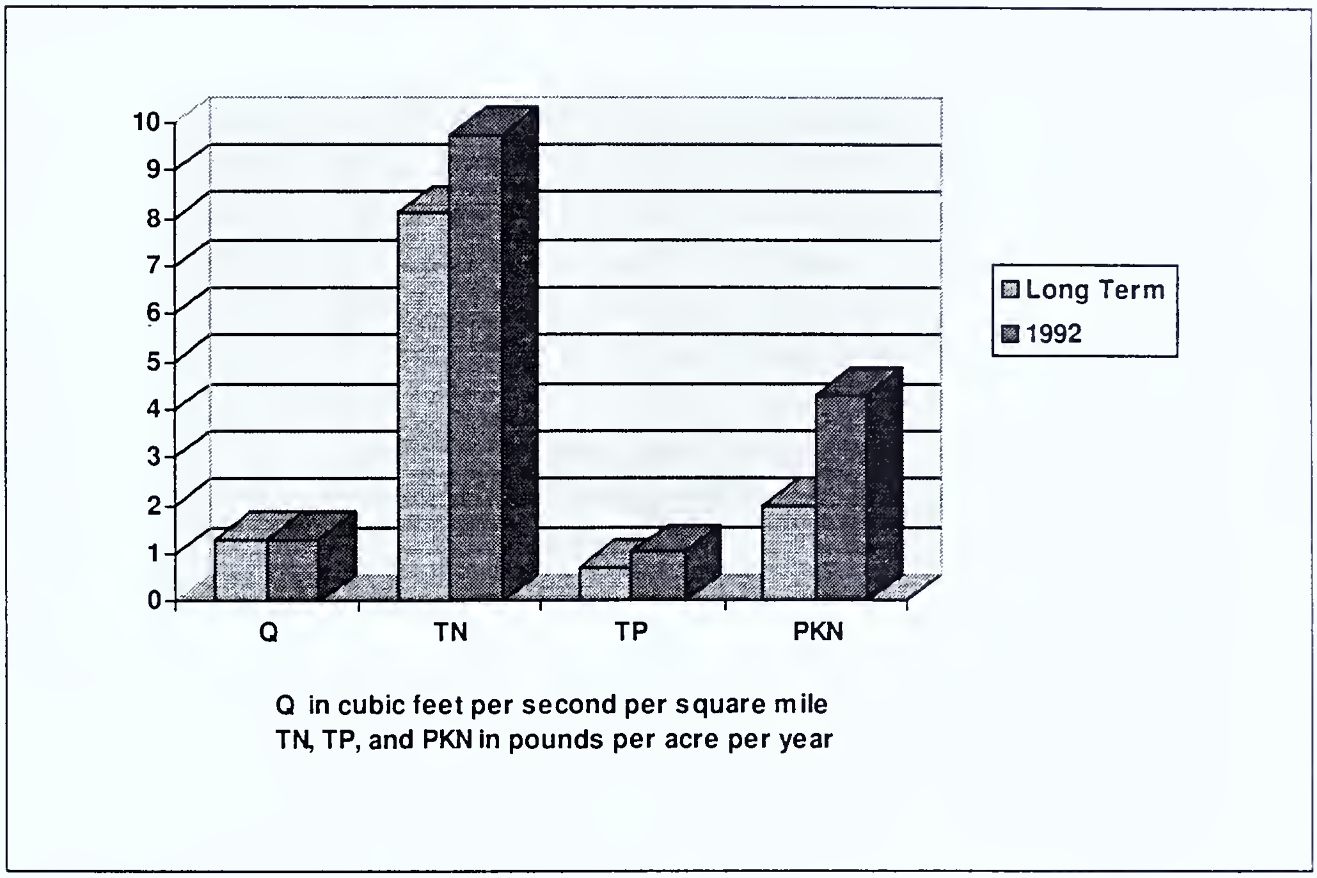

**FIGURE 13. Comparison of Discharge and Total Nitrogen (TN), Total Phosphorus (TP), and Particulate Kjeldahl Nitrogen (PKN) Yields From Paxton Creek Near Penbrook, 1985-88 and 1992-93**

The increase in the yield of total nitrogen, about 20 percent, was due to an increase in the yield of particulate Kjeldahl nitrogen. The increase in particulate Kjeldahl nitrogen yield was from a 1985-88 based long-term mean yield of about 2.2 lb/ac/yr to a yield of about 4.3 lb/ac/yr in 1992. The 1985-88 based long-term yield of phosphorus was 0.71 lb/ac/yr, and the yield in 1992 was 1.04 lb/ac/yr, an increase of about 45 percent.

## Yields From the Subbasins

Yields of nutrients, suspended sediment, copper, lead, and zinc from the five subbasins upstream of Paxton Creek near Penbrook are listed on Tables 9 through 13 for 1992 and 1993. Among the subbasins, significant differences in yields were seen for many of the constituents.

### Comparisons of nutrient yields from the subbasins

Figure 14 shows the average discharge (Q) and yields of nitrite plus nitrate nitrogen (NO2,3), total nitrogen (TN), and total phosphorus (TP) from the Paxton Creek near Penbrook and the five tributary subbasins for the period 1992-1993.

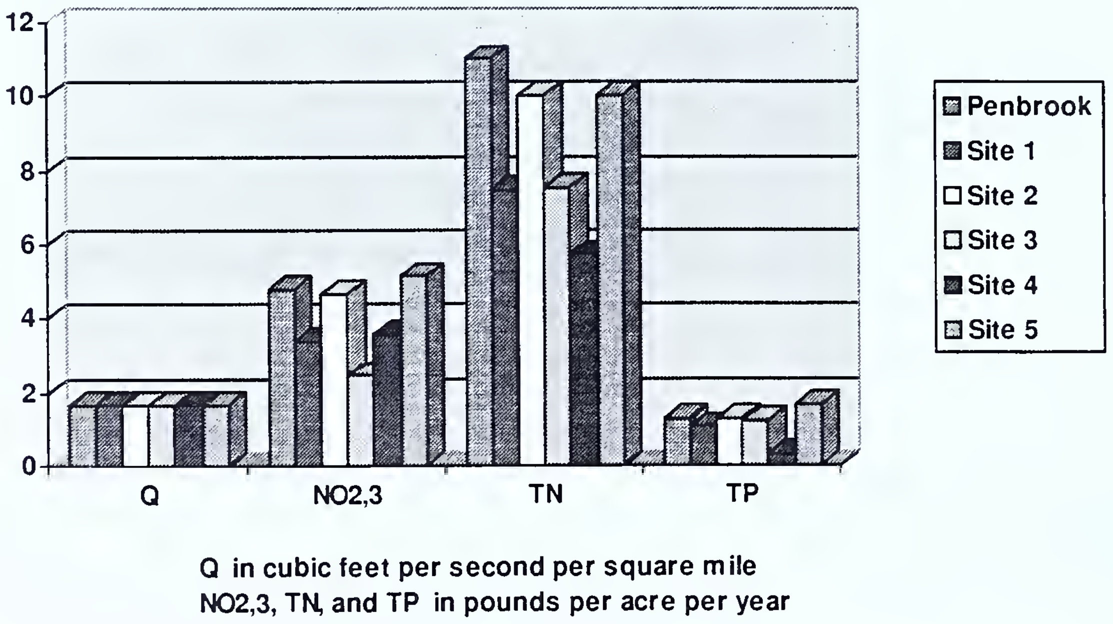

FIGURE 14. Comparison of Average Discharge and Dissolved Nitrite Plus Nitrate Nitrogen (DNO2,3), Total Nitrogen (TN), and Total Phosphorus (TP) Yields From Paxton Creek and Five Tributary Subbasins, 1992-93

TABLE 9. Yields of Nitrogen, Phosphorus, and Suspended Sediment From Site 1, Paxton Creek Tributary Near Linglestown, Pa. (01570980), 1992-93

| Calender Year | Mean Discharge | Suspended Sediment | Nitrogen, Ammonia, Dissolved | Nitrogen, Ammonia, Total | Nitrogen, Kjeldahl, Dissolved | Nitrogen, Kjeldahl, Total | Nitrogen, $NO_2+NO_3$, Dissolved | Nitrogen, Total |
|---|---|---|---|---|---|---|---|---|
| | $ft^3/sec/mi^2$ | pounds per acre per year | | | | | | |
| 1992 | 1.30 | 900 | 0.118 | 0.128 | 0.909 | 3.14 | 2.38 | 5.52 |
| 1993 | 2.04 | 2,440 | 0.162 | 0.210 | 1.610 | 5.01 | 4.42 | 9.43 |

| Calendar Year | Phosphorus Ortho, Dissolved | Phosphorus, Dissolved | Phosphorus, Total | Carbon, Organic, Total | Oil and Grease Total Recov. Total | Copper, Dissolved | Copper, Total | Lead, Dissolved | Lead, Total | Zinc, Dissolved | Zinc, Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | pounds per acre per year | | | | | | | | | | |
| 1992 | 0.0099 | 0.085 | 0.55 | 25.5 | -- | 0.0065 | 0.0221 | 0.00083 | 0.0208 | 0.0127 | 0.0739 |
| 1993 | 0.0108 | 0.130 | 1.56 | 51.9 | -- | 0.0082 | 0.0426 | 0.00096 | 0.1172 | 0.0172 | 0.198 |

TABLE 10. Yields of Nitrogen, Phosphorus, and Suspended Sediment From Site 2, Paxton Creek Tributary Near Linglestown, Pa. (01570984), 1992-93

| Calender Year | Mean Discharge | Suspended Sediment | Nitrogen, Ammonia, Dissolved | Nitrogen, Ammonia, Total | Nitrogen, Kjeldahl, Dissolved | Nitrogen, Kjeldahl, Total | Nitrogen, $NO_2+NO_3$, Dissolved | Nitrogen, Total |
|---|---|---|---|---|---|---|---|---|
| | $ft^3/sec/mi^2$ | pounds per acre per year | | | | | | |
| 1992 | 1.30 | 1,160 | 0.154 | 0.183 | 1.19 | 3.45 | 3.74 | 7.19 |
| 1993 | 2.04 | 2,380 | 0.186 | 0.247 | 2.47 | 7.17 | 5.63 | 12.80 |

| Calendar Year | Phosphorus Ortho, Dissolved | Phosphorus, Dissolved | Phosphorus, Total | Carbon, Organic, Total | Oil and Grease Total Recov. Total | Copper, Dissolved | Copper, Total | Lead, Dissolved | Lead, Total | Zinc, Dissolved | Zinc, Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | pounds per acre per year | | | | | | | | | | |
| 1992 | 0.0190 | 0.128 | 0.723 | 23.4 | -- | 0.0072 | 0.0168 | 0.00100 | 0.0163 | 0.0325 | 0.236 |
| 1993 | 0.0146 | 0.225 | 1.880 | 52.8 | -- | 0.0113 | 0.0319 | 0.00094 | 0.0409 | 0.0637 | 0.376 |

TABLE 11. Yields of Nitrogen, Phosphorus, and Suspended Sediment From Site 3, Stormwater Management Pond No. 1 Near Linglestown, Pa. (01570988), 1992-93

| **Calender Year** | **Mean Discharge** | **Suspended Sediment** | **Nitrogen, Ammonia, Dissolved** | **Nitrogen, Ammonia, Total** | **Nitrogen, Kjeldahl, Dissolved** | **Nitrogen, Kjeldahl, Total** | **Nitrogen, $NO_2+NO_3$, Dissolved** | **Nitrogen, Total** |
|---|---|---|---|---|---|---|---|---|
| | **$ft^3/sec/mi^2$** | **pounds per acre per year** | | | | | | |
| 1992 | 1.30 | 756 | 0.243 | 0.446 | 1.53 | 5.05 | 0.89 | 5.94 |
| 1993 | 2.04 | 1,690 | 0.502 | 1.000 | 2.76 | 5.08 | 4.03 | 9.11 |

| **Calendar Year** | **Phosphorus Ortho, Dissolved** | **Phosphoru,s Dissolved** | **Phosphorus, Total** | **Carbon, Organic, Total** | **Oil and Grease Total Recov. Total** | **Copper, Dissolved** | **Copper, Total** | **Lead, Dissolved** | **Lead, Total** | **Zinc, Dissolved** | **Zinc, Total** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **pounds per acre per year** | | | | | | | | | | |
| 1992 | 0.0215 | 0.129 | 1.03 | 35.9 | -- | 0.00524 | 0.0221 | 0.00187 | 0.0180 | 0.102 | 0.352 |
| 1993 | 0.0190 | 0.181 | 1.45 | 39.2 | -- | 0.00841 | 0.0354 | 0.00186 | 0.0392 | 0.079 | 0.418 |

TABLE 12. Yields of Nitrogen, Phosphorus, and Suspended Sediment From Site 4, Stormwater Management Pond No. 2 Near Paxtonia, Pa. (01570992), 1992-93

| Calender Year | Mean Discharge | Suspended Sediment | Nitrogen, Ammonia, Dissolved | Nitrogen, Ammonia, Total | Nitrogen, Kjeldahl, Dissolved | Nitrogen, Kjeldahl, Total | Nitrogen, $NO_2+NO_3$, Dissolved | Nitrogen, Total |
|---|---|---|---|---|---|---|---|---|
| | $ft^3/sec/mi^2$ | pounds per acre per year | | | | | | |
| 1992 | 1.30 | 126 | 0.452 | 0.433 | 1.14 | 1.82 | 2.09 | 3.91 |
| 1993 | 2.04 | 216 | 0.717 | 0.750 | 1.72 | 2.45 | 5.05 | 7.50 |

| Calendar Year | Phosphorus Ortho, Dissolved | Phosphorus, Dissolved | Phosphorus, Total | Carbon, Organic, Total | Oil and Grease Total Recov. Total | Copper, Dissolved | Copper, Total | Lead, Dissolved | Lead, Total | Zinc, Dissolved | Zinc, Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | pounds per acre per year | | | | | | | | | | |
| 1992 | 0.0108 | 0.0993 | 0.253 | 12.2 | -- | 0.00453 | 0.00993 | 0.00059 | 0.0146 | 0.729 | 1.02 |
| 1993 | 0.0101 | 0.128 | 0.417 | 17.3 | -- | 0.00615 | 0.01360 | 0.00088 | 0.0384 | 1.100 | 1.56 |

TABLE 13. Yields of Nitrogen, Phosphorus, and Suspended Sediment From Site 5, Paxton Creek Tributary Near Paxtonia, Pa. (01570996), 1992-93

| Calender Year | Mean Discharge | Suspended Sediment | Nitrogen, Ammonia, Dissolved | Nitrogen, Ammonia, Total | Nitrogen, Kjeldahl, Dissolved | Nitrogen, Kjeldahl, Total | Nitrogen, $NO_2+NO_3$, Dissolved | Nitrogen, Total |
|---|---|---|---|---|---|---|---|---|
| | $ft^3/sec/mi^2$ | pounds per acre per year | | | | | | |
| 1992 | 1.30 | 2,320 | 0.303 | 0.299 | 1.49 | 3.49 | 4.00 | 7.49 |
| 1993 | 2.04 | 6,540 | 0.416 | 0.389 | 2.01 | 6.21 | 6.29 | 12.50 |

| Calendar Year | Phosphorus Ortho, Dissolved | Phosphoru,s Dissolved | Phosphorus, Total | Carbon, Organic, Total | Oil and Grease Total Recov. Total | Copper, Dissolved | Copper, Total | Lead, Dissolved | Lead, Total | Zinc, Dissolved | Zinc, Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | pounds per acre per year | | | | | | | | | | |
| 1992 | 0.071 | 0.158 | 0.972 | 18.9 | -- | 0.0069 | 0.0225 | 0.00104 | 0.0820 | 0.0275 | 0.251 |
| 1993 | 0.067 | 0.276 | 2.340 | 31.0 | -- | 0.0127 | 0.0480 | 0.00124 | 0.264 | 0.0531 | 0.471 |

Nitrite plus nitrate yields from the 11.2-square-mile basin above Penbrook averaged 4.77 lb/ac/yr (lb per acre per year) for the two-year period. The smallest average yields for the two-year period were 2.46 lb/ac/yr from stormwater management pond 1 at the *housing development under construction*, followed by 3.40 lb/ac/yr from the *undeveloped area*, and 3.57 lb/ac/yr from the stormwater management pond 2 at the *new shopping center*. The average yield from the *new single-family housing development* was 4.68 lb/ac/yr, and the average yield from the *Paxton Creek tributary near Paxtonia* was 5.14 lb/ac/yr.

Total nitrogen yields followed the same pattern as nitrite plus nitrate, except that a larger yield was measured from the entire 11.2-square-mile basin (11.0 lb/ac/yr) than from any of the five subbasins that were sampled. Yields from the subbasins ranged from 5.70 lb/ac/yr from the stormwater management pond 2 at the *new shopping center* to 10.0 lb/ac/yr from both the *new single-family housing development* and the *Paxton Creek tributary near Paxtonia*.

The yield of total phosphorus from the entire 11.2-square-mile basin averaged 1.28 lb/ac/yr for the two-year period. Yields from the subbasins ranged from a low of 0.34 lb/ac/yr from stormwater management 2 at the *new shopping center* to 1.66 lb/ac/yr from the *Paxton Creek tributary near Paxtonia* and 1.30 lb/ac/yr from *the new single-family housing development*.

### Comparison of suspended-sediment yields from the subbasin

Suspended-sediment yields from the 11.2-square-mile area averaged 2,100 lb/ac/yr. Yields from the subbasins ranged from a low of 170 lb/ac/yr from stormwater management pond 2 at the *new shopping center* to a high of 4,400 lb/ac/yr from *the Paxton Creek tributary near Paxtonia*. Yields from the stormwater management pond 1 at the *housing development under construction* were lower (1,200 lb/ac/yr) than yields from the *undeveloped area* (1,700-lb/ac/yr) and yields from the *new single-family housing development* (1,800 lb/ac/yr). Figure 15 shows a comparison of suspended-sediment (SS) yields from each of the monitoring sites.

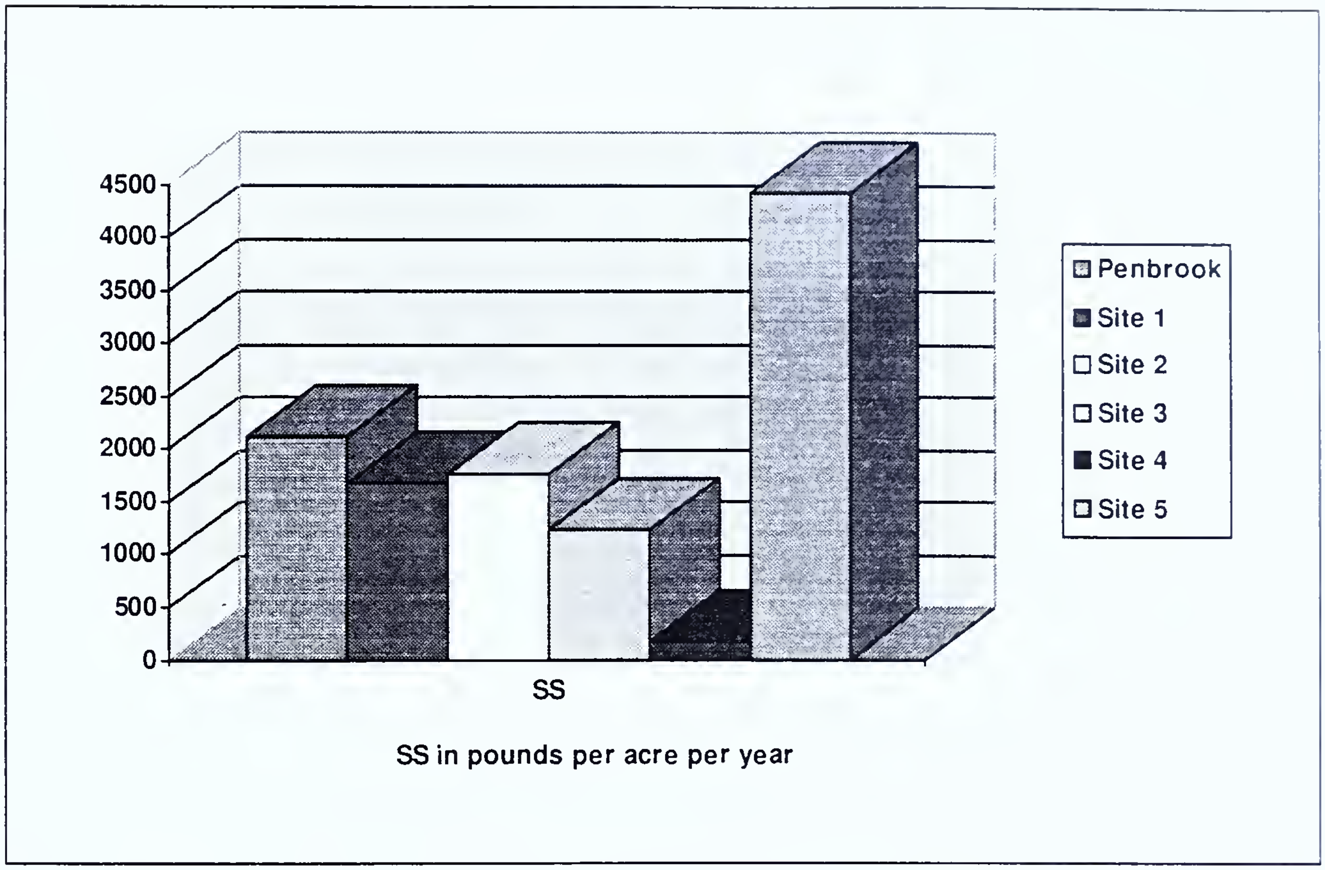

**FIGURE 15. Comaprison of Suspended Sediment Yields From Paxton Creek and Five Tributary Subbasins, 1992-93**

## Comparison of metals yields from the subbasins

### *Copper*

Dissolved copper (DCU) yields (Figure 16) from the total 11.2-square-mile basin, *the new single-family housing development*, and the *Paxton Creek tributary near Paxtonia* were about the same. Yields from all three of these areas averaged about 0.010 lb/ac/yr. Dissolved copper yields from the other three areas (the *undeveloped area*, the stormwater management pond 1 at the *housing development under construction*, and the stormwater management pond 2 at *the new shopping center*) averaged about 0.006 lb/ac/yr. Total copper yields averaged about 0.03 lb/ac/yr from the *undeveloped area* and the stormwater management pond 1 at *the housing development under construction*. The yield from the *new single-family housing development* was slightly lower, 0.024 lb/ac/yr, and the yield from the stormwater management pond 2 at *the new shopping center* was much lower, 0.012 lb/ac/yr.

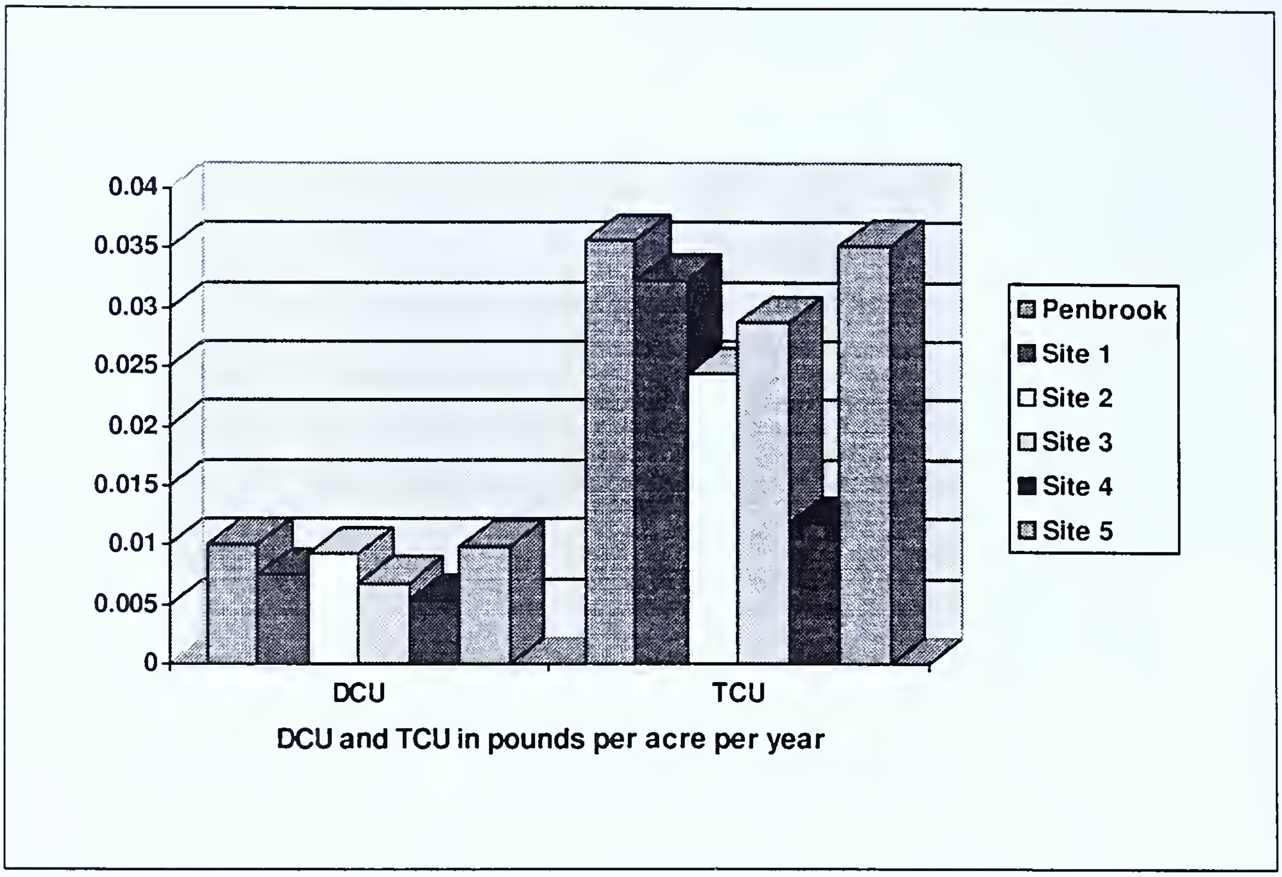

FIGURE 16. Comparison of Average Yields of Dissolved Copper (DCU) and Total Copper (TCU) From Paxton Creek and Five Tributary Subbasins, 1992-93

### *Lead*

The dissolved lead (DPb) yield (0.003 lb/ac/yr) from the entire 11.2-square-mile basin was higher than from any of the subbasins sampled (Figure 17). Dissolved lead yields from the subbasins ranged from 0.001 to 0.002 lb/ac/yr. Yields of total lead (TPb) from the entire 11.2-square-mile basin averaged 0.056 lb/ac/yr. The highest yields of total lead were from the *Paxton Creek tributary near Paxtonia* and from the *new single-family housing development*, 0.17 and 0.069 lb/ac/yr, respectively.

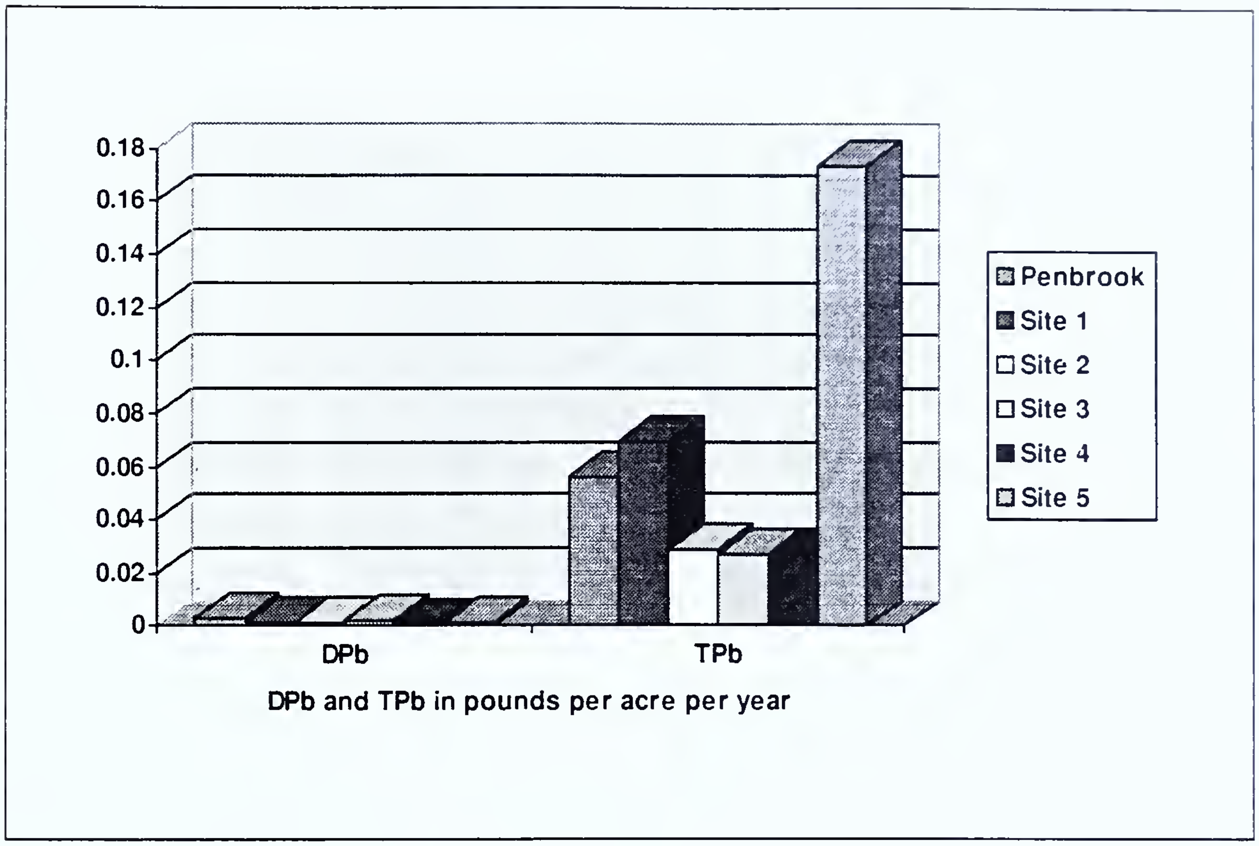

**FIGURE 17. Comparison of Average Yields of Dissolved Lead (DPb) and Total Lead (TPb) From Paxton Creek and Five Tributary Subbasins, 1992-93**

### *Zinc*

The yields of dissolved zinc (DZn) and total zinc (TZn) are shown in Figure 18.

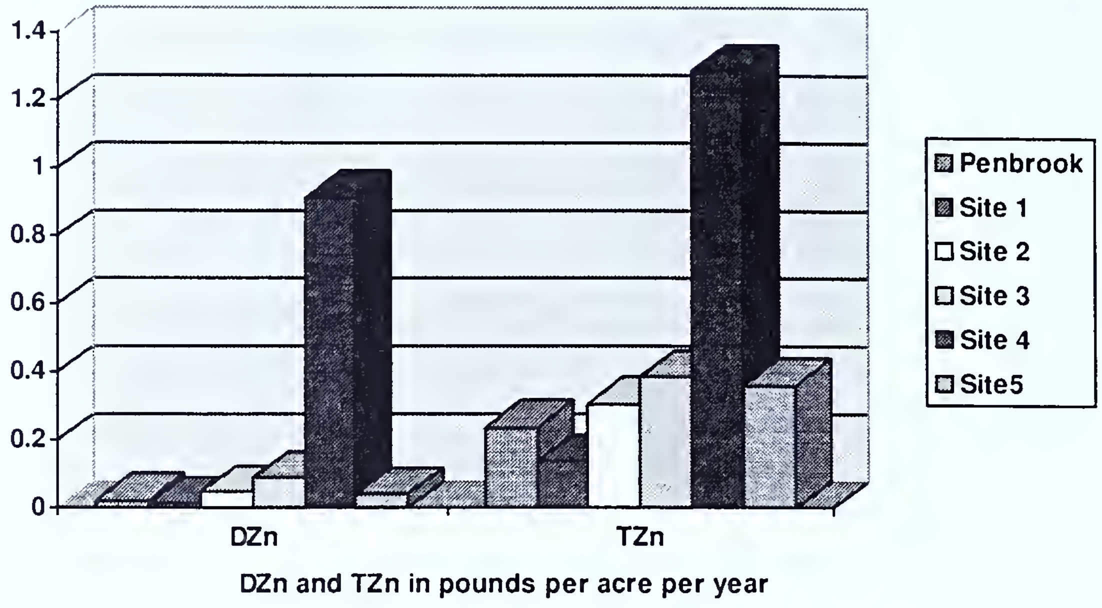

**FIGURE 18. Comparison of Average Yields of Dissolved Zinc (DZn) and Total Zinc (TZn) From Paxton Creek and Five Tributary Subbasins, 1992-93**

The highest yields of both dissolved and total zinc were from the stormwater management pond 2 at the *new shopping center* and may reflect the extensive use of galvanized corrugated metal pipe. Dissolved zinc yields from the entire 11.2-square-mile basin averaged 0.023 lb/ac/yr. Dissolved zinc yields from the stormwater management pond 2 at the *new shopping center* averaged 0.91 lb/ac/yr. The second highest yield was from the stormwater management pond 1 at the *housing development under construction*, 0.09 lb/ac/yr. Total zinc yields from the entire basin averaged 0.24 lb/ac/yr. Yields of total zinc from the stormwater management pond 2 at the *new shopping center* averaged 1.29 lb/ac/yr. Yields from the *new single-family housing development*, the stormwater management pond 1 at *the housing development under construction*, and the *Paxton Creek tributary near Paxtonia* averaged from 0.3 to 0.4 lb/ac/yr. Lowest yields of total zinc were from the *undeveloped area*, 0.14 lb/ac/yr.

### Oil and grease

Yields of oil and grease were not calculated because of the large number of samples that contained concentrations that were below the reporting and/or detection limits.

# SUMMARY

Base flow and stormflow water samples were collected from Paxton Creek near Penbrook and five smaller subbasins with different land uses during calendar years 1992 and 1993 in order to determine the nitrogen, phosphorus, suspended sediment, copper, lead, and zinc yields from each of the subbasins. The yields of nitrogen, phosphorus, and suspended sediment from Paxton Creek near Penbrook for 1992 and 1993 were compared with the 1985-88 yields to determine if any changes in yields occurred between 1985 and 1993. The yields of nutrients, suspended sediment, and the selected metals from the subbasins also were compared to determine the effect of land use on the yields of these constituents.

Nutrient and suspended-sediment concentrations measured during the study showed significant differences between subbasins. Mean concentrations of total nitrogen ranged from 0.81 mg/l in samples collected at Paxton Creek near Penbrook to 1.5 mg/l in samples from the *Paxton Creek tributary near Paxtonia*. Total nitrogen concentrations averaged 1.00 mg/l in samples from the *undeveloped area* and 1.3 mg/l in samples from the *new single-family housing development*.

Mean concentrations of total phosphorus ranged from 0.055 mg/l in samples collected from the stormwater management pond 2 at the *new shopping center* to 0.239 mg/l in samples from Paxton Creek near Penbrook. The total phosphorus concentration in samples collected from the stormwater management pond 1 at the *housing area under construction* averaged 0.231 mg/l.

Mean concentrations of suspended sediment ranged from 30 mg/l in samples collected from the stormwater management pond 2 at the *new shopping center* to 473 mg/l in samples from Paxton Creek near Penbrook. The largest maximum concentrations of suspended sediment were measured at the *Paxton Creek tributary near Paxtonia* (1,270 mg/l) and Paxton Creek near Penbrook (2,370 mg/l). The smallest minimum concentration of 55 mg/l was measured in samples from the stormwater management pond 2 at the *new shopping center*.

Mean concentrations of the metals, copper, lead and zinc varied among the subbasins. Mean concentrations of total copper ranged from 2.1 µg/l in samples from the stormwater management pond 2 at the *new shopping center* to 5.7 µg/l at the stormwater management pond 1 at the *housing development under construction*. Total copper concentrations in samples from the *undeveloped area* averaged 3.6 µg/l. Dissolved copper concentrations were about a third of the total copper concentrations.

Total lead concentrations ranged from 1.5 µg/l in samples from *the new single-family housing development* to 6.3 µg/l in samples from the *Paxton Creek tributary near Paxtonia*. The mean concentration from the *undeveloped area* was 2.4 µg/l. Mean dissolved lead concentrations were about a tenth of the total lead concentrations.

Zinc concentrations varied most widely among the subbasins. The largest concentrations of total zinc were detected in samples from the stormwater management pond 2 at *the new* *shopping center* and the smallest concentrations were in samples from the *undeveloped area*. The mean concentration of total zinc ranged from 254 μg/l in samples from the stormwater management pond 2 at the *new shopping center* to 8.30 μg/l in samples from the *undeveloped area*.

Yields of nutrients, suspended sediment, copper, lead, and zinc were computed using the 7-parameter log-linear model developed by Cohn and others (1989). The constituent yields are reported because it can be more easily compared. The load for a given area can be computed by multiplying the yield by the drainage area.

Long-term total nitrogen, total phosphorus and suspended-sediment yields from Ott and others (1991), for Young Womans Creek and Stony Creek, the two forested basins, Paxton Creek, Susquehanna River at Harrisburg, and Susquehanna River at Conowingo, Md., were compared. The average yield of total nitrogen from the Paxton Creek Basin was twice the yields from the forested basins, ten percent greater than the Susquehanna River at Harrisburg and almost the same as the Susquehanna River at Conowingo. Total phosphorus yields from Paxton Creek Basin were about five times the forested basins, twice the yield from the Susquehanna River at Harrisburg and 2.5 times the yield from the Susquehanna River at Conowingo. Average yields of suspended sediment were 15 times the forested basins, 7 times the Susquehanna River at Harrisburg, and 20 times the Susquehanna River at Conowingo.

The nutrient and suspended-sediment yields for 1992 can be considered fairly representative of the 1985-88 based long-term mean annual yield, because the 1992 yearly water discharge was equal to the long-term mean. Comparison of the yields indicates that there was a slight decrease in dissolved Kjeldahl nitrogen, dissolved nitrite plus nitrate nitrogen, and suspended-sediment yields in 1992. Total ammonia nitrogen, dissolved orthophosphate, and dissolved phosphorus yields were the same in 1992 as the 1985-88 long-term mean loads reported by Ott and others (1991). Total nitrogen yields increased about 20 percent in 1992 due to an increase in particulate Kjeldahl nitrogen (2.2 lbs/acre/yr to 4.3 lbs /acre/yr) and total phosphorus yield increased about 45 percent from 0.71 lb/acre/yr to 1.04 lb/acre/yr.

Comparison of yields among the subbasins showed significant differences for many of the constituents. Average dissolved nitrite plus nitrate yields for the two-year period ranged from 2.46 lb/ac/yr from the stormwater management pond 1 at the *housing development under construction* to 5.14 lb/ac/yr from the *Paxton Creek tributary near Paxtonia*. Total nitrogen yields ranged from 5.7 lbs/ac/yr from the stormwater management pond 2 at the *new shopping center* to 10 lb/ac/yr from both the *new single-family housing development* and the *Paxton Creek tributary near Paxtonia*. Average total phosphorus ranged from 0.34 lb/ac/yr from the stormwater management pond 2 at the *new shopping center* to 1.66 lb/ac/.yr from the *Paxton Creek tributary near Paxtonia*. Suspended-sediment yields from the entire 11.2-square-mile basin average 2,100 lb/ac/yr. Average yields from the subbasins ranged from a low of 170 lb/ac/yr from the stormwater management pond 2 at the *new shopping center* to a high of 4,400 lb/ac/yr from the *Paxton Creek tributary near Paxtonia*.

Dissolved copper yields from the total 11.2-square-mile area, *the new single-family housing development*, and the *Paxton Creek tributary near Paxtonia* were about the same and averaged 0.010 lb/ac/yr. Dissolved copper yields from the three other areas (*the undeveloped area*, the stormwater management pond 1 at the *housing development under construction*, and the stormwater management pond 2 at the *new shopping center*) averaged about 0.006 lb/ac/yr. Total copper yields ranged from 0.012 lb/ac/yr to 0.030 lb/ac/yr.

Dissolved lead yields ranged from 0.001 to 0.003 lb/ac/yr. Total lead yields from Paxton Creek near Penbrook averaged 0.056 lb/ac/yr with the highest yield averaging 0.17 lb/ac/yr from the *Paxton Creek tributary near Paxtonia*.

The highest yields of total zinc were from the stormwater management pond 2 at *the new shopping center*. Total and dissolved zinc from the entire 11.2-square-mile Paxton Creek Basin averaged 0.024 lb/ac/yr and 0.023 lb/ac/yr, respectively, compared to 1.29 lb/ac/yr and 0.91 lb/ac/yr, respectively, from the stormwater management pond 2 at the *new shopping center*. The lowest yield of total zinc (0.14 lb/ac/yr) was from the *undeveloped area*.

# APPENDIX

# ANALYSIS RESULTS OF ALL SAMPLES COLLECTED FROM PAXTON CREEK AND THE FIVE TRIBUTARY SUBBASINS, 1992-93

## TABLE A1. Site 1, Paxton Creek Tributary Near Linglestown, Pa. (01570980)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1992 | | | | | | | | | | | | |
| 04 | 1000 | 2.5500 | 5.0 | 7.70 | 220.00 | 23 | <0.0200 | 0.0300 | <0.2000 | 0.2200 | 0.4600 | 0.680 |
| 04 | 1240 | 3.8500 | 6.0 | 7.80 | 208.00 | 27 | <0.0200 | 0.0400 | <0.2000 | 0.2100 | 0.4400 | 0.650 |
| 04 | 1545 | 2.4000 | 5.5 | 7.90 | 192.00 | 12 | 0.0200 | 0.0300 | <0.2000 | 0.2400 | 0.4400 | 0.680 |
| 05 | 1020 | 1.1500 | 5.0 | 7.80 | 212.00 | 12 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.4800 | 0.580 |
| 06 | 1125 | 0.9100 | 6.0 | 7.80 | 222.00 | 1 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.4800 | 0.580 |
| 16 | 1130 | 0.6200 | 0.0 | 7.70 | 241.00 | 1 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.6400 | 0.740 |
| February | | | | | | | | | | | | |
| 10 | 1040 | 0.1100 | 0.0 | 8.00 | 272.00 | 1 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.4000 | 0.300 |
| March | | | | | | | | | | | | |
| 11 | 0600 | 23.0000 | 7.5 | 7.00 | 120.00 | 649 | 0.0300 | 0.0400 | <0.2000 | 2.6600 | 0.5700 | 3.250 |
| 11 | 0725 | 20.2000 | 7.0 | 7.10 | 133.00 | 182 | <0.0200 | <0.0200 | 0.2600 | 1.0600 | 0.7000 | 1.790 |
| 11 | 1315 | 7.4000 | 6.0 | 7.10 | 166.00 | 23 | <0.0200 | <0.0200 | <0.2000 | 0.3200 | 0.9200 | 1.240 |
| 12 | 0730 | 3.3500 | 5.0 | 7.10 | 173.00 | 4 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 1.0800 | 1.180 |
| 13 | 1200 | 2.0000 | 6.0 | 7.20 | 175.00 | 2 | 0.0200 | 0.0200 | <0.2000 | 0.3600 | 1.1400 | 1.500 |
| 25 | 1115 | 1.6700 | 4.5 | 7.70 | 202.00 | 3 | 0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.7500 | 0.850 |
| April | | | | | | | | | | | | |
| 20 | 1100 | 0.6600 | 8.5 | 8.50 | 194.00 | 2 | 0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.4200 | 0.520 |
| May | | | | | | | | | | | | |
| 12 | 0920 | 0.6600 | 14.0 | 8.20 | 190.00 | 6 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.3300 | 0.430 |
| 30 | 2000 | 0.7000 | -- | 8.05 | 196.00 | 23 | <0.0200 | 0.0200 | 0.2400 | 0.4700 | 0.3500 | 0.840 |
| 30 | 2140 | 1.3200 | 13.5 | 8.00 | 192.00 | 76 | 0.0200 | 0.0400 | 0.2200 | 0.6900 | 0.3100 | 1.000 |
| 30 | 2340 | 2.8000 | -- | 7.85 | 171.00 | 121 | <0.0200 | 0.0700 | 0.2900 | 0.9900 | 0.2400 | 1.230 |
| 31 | 0715 | 4.5000 | 15.0 | 7.80 | 141.00 | 59 | <0.0200 | 0.0500 | 0.3100 | 0.7100 | 0.3300 | 1.060 |
| 31 | 1820 | 1.0500 | 17.5 | 7.60 | 181.00 | 13 | <0.0200 | <0.0200 | 0.2400 | 0.3200 | 0.2600 | 0.580 |
| June | | | | | | | | | | | | |
| 18 | 0925 | 0.2300 | 15.0 | -- | -- | 11 | 0.0200 | 0.0200 | <0.2000 | 0.2000 | 0.3300 | 0.430 |

TABLE A1. Site 1, Paxton Creek Tributary Near Linglestown, Pa. (01570980) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1992 | | | | | | | | | | | | |
| 03 | 1715 | 1.1000 | -- | 7.50 | 172.00 | 50 | 0.0200 | 0.0300 | <0.2000 | 0.4800 | 0.4400 | 0.920 |
| 03 | 1840 | 1.3500 | -- | 7.50 | 171.00 | 41 | <0.0200 | 0.0200 | <0.2000 | 0.6000 | 0.4400 | 1.040 |
| 03 | 2030 | 0.7800 | -- | 7.50 | 174.00 | 24 | 0.0300 | 0.0300 | <0.2000 | 0.4400 | 0.4600 | 0.900 |
| 04 | 0920 | 0.3900 | 17.5 | 7.70 | 200.00 | 2 | 0.0200 | 0.0300 | <0.2000 | 0.2700 | 0.2900 | 0.560 |
| 04 | 2155 | 0.1100 | 19.5 | 7.50 | 209.00 | 16 | 0.0300 | 0.0300 | <0.2000 | 0.2300 | 0.2200 | 0.450 |
| 15 | 1015 | 0.0900 | 22.5 | 7.70 | 205.00 | 14 | <0.0200 | 0.0300 | 0.3200 | 0.5300 | 0.2600 | 0.790 |
| August | | | | | | | | | | | | |
| 19 | 1125 | 0.2000 | 19.0 | 7.45 | -- | -- | 0.0300 | 0.0300 | 0.2300 | 0.3000 | 0.2900 | 0.590 |
| 28 | 1920 | 1.6500 | 19.0 | 7.70 | 102.00 | 172 | 0.0300 | 0.0400 | 0.4400 | 1.6400 | 0.1300 | 1.770 |
| 28 | 2135 | 3.3000 | 18.5 | 7.60 | 142.00 | 146 | 0.0700 | 0.0800 | 0.7000 | 1.8400 | 0.3300 | 2.170 |
| 28 | 2310 | 1.8000 | 18.5 | 7.60 | 147.00 | 46 | 0.0600 | 0.0800 | 0.6300 | 1.1900 | 0.3500 | 1.590 |
| 29 | 0930 | 0.3100 | 17.5 | 7.50 | 192.00 | 11 | 0.0200 | 0.0200 | 0.3200 | 0.7100 | 0.2400 | 0.950 |
| 30 | 1220 | 0.0640 | 15.0 | 7.60 | 242.00 | 8 | <0.0200 | <0.0200 | <0.2000 | 0.3400 | 0.0400 | 0.380 |
| September | | | | | | | | | | | | |
| 21 | 0845 | 0.0100 | 15.5 | 7.60 | 267.00 | 14 | 0.0300 | 0.0300 | 0.3100 | 0.3600 | 0.1300 | 0.490 |
| October | | | | | | | | | | | | |
| 15 | 1100 | 0.4000 | 10.5 | 7.65 | 241.00 | 2 | 0.0500 | 0.0500 | 0.2400 | 0.2700 | 0.2600 | 0.530 |
| November | | | | | | | | | | | | |
| 18 | 1020 | 0.5500 | 6.0 | 8.10 | 180.00 | 8 | 0.0600 | 0.0600 | <0.2000 | 0.2200 | 0.5700 | 0.790 |
| 18 | 1025 | 0.5500 | 6.0 | 8.10 | 180.00 | 8 | 0.0500 | 0.0500 | 0.2200 | 0.2500 | 0.5700 | 0.820 |
| December | | | | | | | | | | | | |
| 09 | 1020 | 0.6800 | 2.0 | 6.80 | 201.00 | 5 | 0.0200 | 0.0300 | 0.2000 | 0.2300 | 0.6400 | 0.870 |
| 17 | 0540 | 3.2000 | 3.0 | 7.40 | 208.00 | 35 | <0.0200 | 0.0200 | 0.2100 | 0.4200 | 0.7700 | 1.190 |
| 17 | 0845 | 7.9500 | 4.0 | 7.20 | 170.00 | 61 | 0.0200 | 0.0200 | 0.2700 | 0.5000 | 0.5300 | 1.050 |
| 17 | 1300 | 7.9500 | 5.0 | 7.60 | 157.00 | 21 | 0.0200 | 0.0600 | 0.3000 | 0.4800 | 0.6100 | 1.140 |
| 18 | 0545 | 2.9500 | 3.5 | 7.50 | 200.00 | 4 | 0.0200 | 0.0200 | <0.2000 | <0.2500 | 0.8300 | 1.080 |
| 19 | 1400 | 2.4000 | 5.5 | 7.30 | 196.00 | 6 | 0.0900 | 0.0200 | <0.2000 | <0.2000 | 0.8300 | 0.930 |

# TABLE A1. Site 1, Paxton Creek Tributary Near Linglestown, Pa. ( 01570980) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1993 | | | | | | | | | | | | |
| 11 | 1020 | 1.3200 | 1.5 | 7.00 | 180.00 | 6. | <0.0200 | 0.0300 | <0.2000 | <0.2000 | 0.8100 | 0.910 |
| 11 | 1025 | 1.3200 | 1.5 | 7.00 | 180.00 | 6 | <0.0200 | <0.0200 | <0.2000 | 0.2700 | 0.7900 | 1.060 |
| February | | | | | | | | | | | | |
| 09 | 1025 | 0.3100 | 0.0 | 8.15 | 231.00 | 3 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.7500 | 0.850 |
| March | | | | | | | | | | | | |
| 04 | 1010 | 5.4000 | 1.0 | 7.10 | 215.00 | 119 | 0.0300 | 0.0300 | 0.2100 | 0.9500 | 0.9000 | 1.850 |
| 04 | 1515 | 12.5000 | 1.0 | 7.30 | 168.00 | 258 | 0.0400 | 0.0400 | 0.3100 | 1.3800 | 0.9900 | 2.370 |
| 04 | 2000 | 12.0000 | 1.0 | 7.30 | 165.00 | 131 | 0.0400 | 0.0400 | 0.2300 | 0.8200 | 1.0100 | 1.850 |
| 05 | 0950 | 6.7000 | -- | 7.25 | 210.00 | 17 | 0.0200 | 0.0200 | <0.2000 | 0.2800 | 1.2300 | 1.510 |
| 06 | 1200 | 4.5000 | 3.0 | 7.15 | 218.00 | 8 | 0.0400 | 0.0400 | <0.2000 | <0.2000 | 1.2700 | 1.370 |
| 06 | 1205 | 4.5000 | 3.0 | 7.15 | 218.00 | 8 | 0.0400 | 0.0400 | <0.2000 | 0.2000 | 1.2700 | 1.470 |
| 22 | 1205 | 3.4800 | 4.0 | 7.90 | 180.00 | 4 | 0.0200 | 0.0400 | <0.2000 | <0.2000 | 0.8800 | 0.980 |
| 22 | 1210 | 3.4800 | 4.0 | 7.90 | 180.00 | 2 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.8800 | 0.980 |
| April | | | | | | | | | | | | |
| 28 | 1116 | 3.0500 | 10.5 | 6.90 | 157.00 | 8 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.5700 | 0.670 |
| May | | | | | | | | | | | | |
| 05 | 1030 | 5.2000 | 14.0 | 7.80 | 140.00 | 118 | 0.0500 | 0.0900 | 0.3800 | 1.1000 | 0.4000 | 1.500 |
| 05 | 1915 | 7.0000 | 16.0 | 7.70 | 120.00 | 503 | 0.0400 | 0.1700 | 0.3200 | 3.0000 | 0.4000 | 3.420 |
| 05 | 2040 | 5.0000 | 16.0 | 7.60 | 115.00 | 129 | <0.0200 | 0.0900 | 0.3500 | 1.0900 | 0.4000 | 1.490 |
| 06 | 0810 | 2.6000 | 13.5 | 8.00 | 138.00 | 14 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.4200 | 0.520 |
| 07 | 0925 | 1.8000 | 13.0 | 8.00 | 160.00 | 11 | <0.0200 | <0.0200 | <0.2000 | 0.2100 | 0.4400 | 0.650 |
| 18 | 1100 | 0.6000 | 12.0 | 8.25 | 145.00 | 1 | 0.0500 | 0.0500 | <0.2000 | <0.2000 | 0.5700 | 0.670 |
| 18 | 1105 | 0.6000 | 12.0 | 8.25 | 145.00 | -- | 0.0300 | 0.0400 | <0.2000 | <0.2000 | 0.5500 | 0.670 |
| June | | | | | | | | | | | | |
| 23 | 1220 | 0.1100 | -- | 8.10 | 244.00 | 8 | <0.0200 | 0.0400 | <0.2000 | 0.2200 | 0.3700 | 0.620 |

TABLE A1. Site 1, Paxton Creek Tributary Near Linglestown, Pa. ( 01570980) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1993 | | | | | | | | | | | | |
| 02 | 0920 | 0.3700 | 18.0 | 7.30 | 218.00 | 61 | <0.0200 | 0.0400 | 0.2100 | 0.5200 | 0.4600 | 0.980 |
| 02 | 1045 | 1.9000 | 17.5 | 7.00 | 188.00 | 89 | 0.0300 | 0.0400 | <0.2000 | 0.6600 | 0.5500 | 1.210 |
| 02 | 1405 | 3.5000 | 18.0 | 7.50 | 141.00 | 199 | 0.0400 | 0.0600 | 0.2700 | 1.0900 | 0.5100 | 1.620 |
| 02 | 1850 | 5.2000 | 18.5 | 7.40 | 145.00 | 65 | 0.0700 | 0.0700 | 0.3800 | 0.8400 | 0.5100 | 1.370 |
| 03 | 1010 | 0.6800 | 18.5 | 6.80 | 198.00 | 2 | <0.0200 | 0.0300 | 0.2300 | 0.3600 | 0.4400 | 0.800 |
| 15 | 1105 | 0.0100 | -- | 7.60 | 245.00 | 2 | <0.0200 | 0.0200 | 0.2000 | 0.3100 | 0.1800 | 0.510 |
| 15 | 1110 | 0.0100 | -- | 7.60 | 245.00 | 19 | <0.0200 | 0.0200 | 0.2600 | 0.3800 | 0.2000 | 0.580 |
| August | | | | | | | | | | | | |
| 19 | 1450 | 0.0050 | 23.0 | 7.90 | 240.00 | 5 | 0.0600 | 0.1000 | 0.2200 | 0.2700 | 0.0700 | 0.360 |
| September | | | | | | | | | | | | |
| 29 | 1155 | 0.1500 | 12.5 | 7.40 | 275.00 | 1 | <0.0200 | <0.0200 | 0.3800 | 0.3800 | 0.3300 | 0.730 |
| 29 | 1200 | 0.1500 | 12.5 | 7.40 | 275.00 | -- | <0.0200 | <0.0200 | 0.3200 | 0.3400 | 0.3300 | 0.670 |
| October | | | | | | | | | | | | |
| 20 | 1120 | 0.0800 | 12.5 | 7.70 | 290.00 | 2 | <0.0200 | <0.0200 | <0.2000 | 0.2400 | <0.0400 | 0.281 |
| November | | | | | | | | | | | | |
| 16 | 1140 | 0.1700 | 10.0 | 7.80 | 290.00 | 1 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | <0.0400 | 0.120 |
| 17 | 1851 | 3.3000 | 11.5 | 7.50 | 213.00 | 77 | <0.0200 | <0.0200 | 0.2700 | 0.5600 | 0.1300 | 0.690 |
| 17 | 2013 | 5.9000 | 11.0 | 7.40 | 184.00 | 91 | <0.0200 | <0.0200 | 0.3700 | 0.7900 | 0.2000 | 0.990 |
| 17 | 2210 | 3.4000 | 10.0 | 7.45 | 187.00 | 35 | <0.0200 | <0.0200 | 0.4200 | 0.7800 | 0.3100 | 1.090 |
| 18 | 0630 | 1.1000 | 8.5 | 7.65 | 218.00 | 13 | <0.0200 | <0.0200 | 0.2600 | 0.3600 | 0.2800 | 0.670 |
| 18 | 1810 | 0.5700 | 8.5 | -- | -- | 1 | <0.0200 | 0.0200 | 0.2000 | 0.2500 | 0.1800 | 0.430 |
| December | | | | | | | | | | | | |
| 21 | 1125 | 7.2700 | 4.0 | 7.50 | 115.00 | 75 | <0.0200 | 0.0300 | 0.4500 | 0.6800 | 0.4000 | 1.100 |

TABLE A1. Site 1, Paxton Creek Tributary Near Linglestown, Pa. (01570980) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1992 | | | | | | | | | | | | |
| 04 | 1000 | 0.005 | 0.020 | 0.040 | 3.5000 | <0.5000 | 1.3400 | 2.0300 | 0.9640 | 1.6700 | 2.7100 | 5.4500 |
| 04 | 1240 | 0.004 | 0.020 | 0.040 | 5.0000 | <0.5000 | 1.5400 | 1.8900 | 1.0400 | 1.8400 | 2.4400 | 5.3700 |
| 04 | 1545 | 0.004 | <0.020 | 0.030 | 4.8000 | <0.5000 | 1.7100 | 1.8600 | 1.3200 | 1.6700 | 3.5300 | 4.2000 |
| 05 | 1020 | 0.003 | <0.020 | 0.020 | 2.8000 | <0.5000 | 1.0900 | 1.3300 | 0.0200 | 0.2400 | 2.3600 | 3.3800 |
| 06 | 1125 | 0.003 | <0.020 | 0.020 | 2.4000 | <0.5000 | 1.0000 | 0.8200 | <0.2000 | <0.2000 | 2.4300 | 2.1700 |
| 16 | 1130 | <0.002 | <0.020 | <0.020 | 2.2000 | -- | 1.1000 | 1.3700 | 0.2030 | 0.2030 | 3.0900 | 1.3100 |
| February | | | | | | | | | | | | |
| 10 | 1040 | <0.002 | 0.020 | 0.020 | 1.9000 | 1.0000 | 0.9900 | 20.9000 | <0.2000 | <0.2000 | 1.1700 | 1.1200 |
| March | | | | | | | | | | | | |
| 11 | 0600 | 0.009 | 0.020 | 0.440 | 12.9000 | <0.5000 | 2.5200 | 11.2000 | 0.3090 | 16.8000 | 3.7300 | 42.5000 |
| 11 | 0725 | <0.002 | 0.020 | 0.170 | 9.2000 | <0.5000 | 2.0000 | 4.2400 | 0.2250 | 4.9300 | 1.9700 | 13.7000 |
| 11 | 1315 | <0.002 | 0.020 | 0.040 | 5.1000 | <0.5000 | 1.1000 | 1.7900 | <0.2000 | 0.9110 | 3.5700 | 2.9300 |
| 12 | 0730 | <0.002 | 0.020 | 0.030 | 2.8000 | <0.5000 | 1.2900 | 1.0600 | <0.2000 | 0.2820 | 1.7600 | 1.4000 |
| 13 | 1200 | <0.002 | <0.020 | 0.020 | 2.2000 | <0.5000 | <0.8000 | 0.9500 | <0.2000 | <0.2000 | 1.8400 | 1.8400 |
| 25 | 1115 | 0.005 | 0.020 | 0.020 | 1.9000 | <0.5000 | 1.1400 | 0.8950 | <0.2000 | <0.2000 | 4.6900 | 2.1000 |
| April | | | | | | | | | | | | |
| 20 | 1100 | 0.005 | 0.020 | 0.020 | 2.0000 | 0.6000 | 0.8890 | 1.3700 | <0.2000 | <0.2000 | 1.6200 | 1.5900 |
| May | | | | | | | | | | | | |
| 12 | 0920 | 0.002 | 0.020 | 0.020 | 2.2000 | <0.5000 | <0.8000 | 1.0700 | <0.2000 | <0.2000 | <1.0000 | 1.0400 |
| 30 | 2000 | <0.002 | 0.020 | 0.030 | 3.3000 | <0.5000 | <0.8000 | 1.1600 | <0.2000 | 0.8440 | 1.0300 | 3.6400 |
| 30 | 2140 | <0.002 | 0.020 | 0.070 | 4.6000 | <0.5000 | 1.0500 | 2.3500 | <0.2000 | 2.0200 | 1.1600 | 7.2500 |
| 30 | 2340 | <0.002 | 0.020 | 0.110 | 6.8000 | <0.5000 | 1.3800 | 4.0100 | 0.3260 | 3.8200 | 3.5800 | 11.4000 |
| 31 | 0715 | <0.002 | 0.020 | 0.070 | 9.0000 | <0.5000 | 1.2700 | 2.5200 | <0.2000 | 2.3200 | 1.7300 | 7.6400 |
| 31 | 1820 | <0.002 | 0.020 | 0.020 | 5.0000 | <0.5000 | 0.8340 | 1.1600 | <0.2000 | 0.3990 | 1.1800 | 2.1900 |
| June | | | | | | | | | | | | |
| 18 | 0925 | 0.007 | 0.020 | 0.030 | 2.9000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | <1.0000 | <1.0000 |

TABLE A1. Site 1, Paxton Creek Tributary Near Linglestown, Pa. (01570980) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1992 | | | | | | | | | | | | |
| 03 | 1715 | 0.005 | 0.019 | 0.090 | 5.0000 | <0.5000 | 1.7500 | 3.5100 | 0.4500 | 1.8000 | 3.9000 | 5.7900 |
| 03 | 1840 | 0.009 | 0.023 | 0.070 | 5.8000 | <0.5000 | 5.8800 | 9.1200 | 0.7800 | 1.4200 | 3.6600 | 6.7200 |
| 03 | 2030 | 0.008 | 0.024 | 0.060 | 6.4000 | <0.5000 | 4.6100 | 6.7400 | 0.3700 | 1.1000 | 1.8000 | 3.7500 |
| 04 | 0920 | 0.008 | 0.021 | 0.030 | 4.7000 | <0.5000 | 5.1900 | 8.2500 | <0.2000 | 0.3900 | 2.4400 | 1.9500 |
| 04 | 2155 | 0.008 | 0.022 | 0.030 | 4.1000 | <0.5000 | 3.6700 | 5.4700 | <0.2000 | 0.4400 | <1.0000 | 1.5700 |
| 15 | 1015 | 0.008 | 0.030 | 0.040 | 4.4000 | <0.5000 | 2.1700 | 2.2100 | <0.2000 | 0.3100 | 1.1000 | 2.1300 |
| August | | | | | | | | | | | | |
| 19 | 1125 | <0.002 | <0.002 | 0.030 | 3.6000 | 0.5000 | -- | 1.0000 | <0.2000 | <0.2000 | <1.0000 | <1.0000 |
| 28 | 1920 | 0.026 | 0.065 | 0.300 | 6.8000 | <0.5000 | 1.9400 | 7.2800 | 0.2200 | 6.0500 | 2.8600 | 25.9000 |
| 28 | 2135 | 0.003 | 0.040 | 0.210 | 9.8000 | <0.5000 | 2.5800 | 8.4300 | 0.2270 | 7.2300 | 7.3400 | 25.6000 |
| 28 | 2310 | <0.002 | 0.036 | 0.120 | 9.8000 | <0.5000 | 2.5000 | 4.7000 | <0.2000 | 2.2100 | 3.2000 | 10.1000 |
| 29 | 0930 | <0.002 | 0.026 | 0.070 | 7.0000 | <0.5000 | 4.6300 | 2.4800 | <0.2000 | 0.4690 | 6.8100 | 2.8000 |
| 30 | 1220 | <0.002 | 0.022 | 0.040 | 4.9000 | <0.5000 | 1.8400 | 1.8900 | 0.2400 | 0.3040 | 2.6100 | 2.8400 |
| September | | | | | | | | | | | | |
| 21 | 0845 | 0.006 | 0.022 | 0.030 | 3.4000 | <0.5000 | 1.3900 | <0.8000 | <0.2000 | <0.2000 | 2.2400 | 1.3100 |
| October | | | | | | | | | | | | |
| 15 | 1100 | <0.002 | 0.019 | 0.020 | 3.4000 | <0.5000 | 0.8700 | 0.8700 | <0.2000 | <0.2000 | 1.2200 | 2.0400 |
| November | | | | | | | | | | | | |
| 18 | 1020 | <0.002 | 0.018 | 0.020 | 2.3000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 1.9700 | 1.4100 |
| 18 | 1025 | <0.002 | 0.017 | 0.020 | 2.3000 | -- | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 2.3900 | 1.6100 |
| December | | | | | | | | | | | | |
| 09 | 1020 | 0.003 | 0.020 | 0.020 | 1.8000 | <0.5000 | 2.0900 | 2.3800 | <0.2000 | 0.3000 | 1.5200 | <1.0000 |
| 17 | 0540 | <0.002 | 0.020 | 0.063 | 2.6000 | <0.5000 | 1.0900 | 1.9000 | 0.9000 | 0.9000 | 3.2500 | 9.0500 |
| 17 | 0845 | <0.002 | 0.024 | 0.090 | 5.4000 | <0.5000 | 1.0200 | 3.0100 | 1.3000 | 1.3000 | 4.2600 | 27.4000 |
| 17 | 1300 | <0.002 | 0.021 | 0.063 | 5.9000 | <0.5000 | 1.7100 | 1.9100 | 0.6000 | 0.6000 | 8.8700 | 12.9000 |
| 18 | 0545 | <0.002 | 0.019 | 0.032 | 2.8000 | <0.5000 | 0.8670 | 1.1900 | <0.2000 | <0.2000 | 3.7000 | 5.6700 |
| 19 | 1400 | <0.002 | 0.015 | 0.026 | 2.1000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 5.8700 | 7.3600 |

## TABLE A1. Site 1, Paxton Creek Tributary Near Linglestown, Pa. (01570980) (Continued)

| Date | Time | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1993 | | | | | | | | | | | | |
| 11 | 1020 | 0.003 | 0.018 | 0.020 | 1.8000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 1.1200 | <1.1200 |
| 11 | 1025 | <0.002 | 0.016 | 0.020 | 1.8000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | <1.0000 | <1.0000 |
| February | | | | | | | | | | | | |
| 09 | 1025 | <0.002 | 0.017 | 0.020 | 1.4000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | <1.0000 | <1.0000 |
| March | | | | | | | | | | | | |
| 04 | 1010 | <0.002 | 0.016 | 0.120 | 3.8000 | <0.5000 | 0.8860 | 57.5000 | <0.2000 | 54.8000 | 1.8500 | 118.0000 |
| 04 | 1515 | <0.002 | 0.018 | 0.220 | 5.7000 | <0.5000 | 1.2500 | 6.0600 | <0.2000 | 8.0700 | 1.4000 | 26.6000 |
| 04 | 2000 | <0.002 | 0.016 | 0.130 | 5.5000 | <0.5000 | 1.4300 | 3.7200 | <0.2000 | 3.7400 | 2.1400 | 12.9000 |
| 05 | 0950 | <0.002 | 0.016 | 0.040 | 3.5000 | <0.5000 | 1.0300 | 1.1800 | <0.2000 | 0.4780 | 1.8500 | 3.5800 |
| 06 | 1200 | <0.002 | 0.014 | 0.030 | 2.5000 | <0.5000 | <0.8000 | 1.2100 | <0.2000 | 0.2540 | 1.7700 | 2.3500 |
| 06 | 1205 | <0.002 | 0.019 | 0.030 | 2.5000 | <0.5000 | <0.8000 | 0.8800 | <0.2000 | 0.2680 | 1.3900 | 2.4600 |
| 22 | 1205 | <0.010 | 0.017 | 0.020 | <1.0000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | 0.2100 | <1.0000 | <1.0000 |
| 22 | 1210 | <0.010 | 0.015 | 0.020 | <1.0000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | <1.0000 | <1.0000 |
| April | | | | | | | | | | | | |
| 28 | 1116 | <0.002 | 0.017 | 0.020 | 2.1000 | 0.5600 | 0.8000 | 0.8110 | <0.2000 | <0.2000 | 3.4000 | 4.0200 |
| May | | | | | | | | | | | | |
| 05 | 1030 | <0.002 | 0.017 | 0.130 | 7.1000 | <0.5000 | 2.7600 | 5.7800 | 0.6800 | 4.9100 | 3.2000 | 17.5000 |
| 05 | 1915 | <0.002 | 0.016 | 0.520 | 8.2000 | 0.5900 | 1.2300 | 14.4000 | <0.2000 | 21.7000 | 4.5500 | 61.2000 |
| 05 | 2040 | <0.002 | 0.017 | 0.150 | 7.9000 | <0.5000 | 1.5900 | 4.1900 | <0.2000 | 5.7400 | 4.0900 | 19.0000 |
| 06 | 0810 | <0.002 | 0.013 | 0.030 | 3.5000 | <0.5000 | <0.8000 | 1.1400 | <0.2000 | 0.5900 | 1.9100 | 2.5300 |
| 07 | 0925 | <0.002 | 0.016 | 0.030 | 2.4000 | 0.5800 | 1.2200 | 1.3200 | <0.2000 | 0.5200 | <1.0000 | 3.7300 |
| 18 | 1100 | <0.002 | 0.016 | <0.020 | 2.0000 | 0.5200 | 1.9100 | 2.6600 | <0.2000 | 0.2000 | <1.0000 | 1.7300 |
| 18 | 1105 | <0.002 | 0.013 | 0.020 | 2.0000 | <0.5000 | 1.8000 | 2.6500 | <0.2000 | 3.2400 | <1.0000 | 1.6100 |
| June | | | | | | | | | | | | |
| 23 | 1220 | 0.008 | 0.021 | 0.040 | 3.3000 | <0.5000 | 1.7900 | 2.1500 | <0.2000 | 0.4280 | -- | 2.8400 |

TABLE A1. Site 1, Paxton Creek Tributary Near Linglestown, Pa. (01570980) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1993 | | | | | | | | | | | | |
| 02 | 0920 | <0.002 | 0.038 | 0.110 | 4.5000 | <0.5000 | 1.1800 | 2.8200 | <0.2000 | 1.9800 | <1.0000 | 5.9200 |
| 02 | 1045 | <0.002 | 0.024 | 0.120 | 4.4000 | <0.5000 | 1.2600 | 4.0000 | <0.2000 | 3.4000 | 1.2400 | 11.2000 |
| 02 | 1405 | 0.003 | 0.021 | 0.160 | 6.7000 | <0.5000 | 1.3800 | 6.4100 | 0.2700 | 6.8200 | 3.2000 | 21.2000 |
| 02 | 1850 | <0.002 | 0.028 | 0.080 | 8.0000 | <0.5000 | 1.8700 | 4.5600 | 0.2100 | 3.2800 | 2.7900 | 13.5000 |
| 03 | 1010 | <0.002 | 0.022 | 0.030 | 4.9000 | <0.5000 | 1.2500 | 1.8800 | <0.2000 | 0.3700 | 2.6300 | 2.6800 |
| 15 | 1105 | 0.005 | 0.023 | 0.060 | 3.8000 | <0.5000 | 1.3400 | 1.6700 | <0.2000 | 0.4970 | 2.2000 | 3.4800 |
| 15 | 1110 | 0.006 | 0.023 | 0.070 | 3.9000 | <0.5000 | 1.3500 | 1.6300 | <0.2000 | 0.4550 | 1.7600 | 2.3600 |
| August | | | | | | | | | | | | |
| 19 | 1450 | 0.007 | <0.020 | 0.020 | 3.5000 | <0.5000 | 1.5300 | 1.1400 | <0.2000 | 0.4200 | 1.9200 | 1.9200 |
| September | | | | | | | | | | | | |
| 29 | 1155 | 0.005 | 0.021 | 0.030 | 4.0000 | <0.5000 | 1.3600 | 1.6100 | <0.2000 | <0.2000 | 1.5500 | 1.5500 |
| 29 | 1200 | 0.005 | 0.022 | 0.030 | 4.0000 | -- | 1.5400 | 1.2500 | <0.2000 | <0.2000 | 5.6100 | 5.6100 |
| October | | | | | | | | | | | | |
| 20 | 1120 | 0.008 | 0.032 | `0.030 | 5.0000 | <0.5000 | 1.1600 | 1.1600 | -- | <0.2000 | 3.1400 | 3.1400 |
| November | | | | | | | | | | | | |
| 16 | 1140 | <0.002 | 0.019 | 0.030 | 3.4000 | <0.5000 | 0.9610 | 0.9610 | <0.2000 | <0.2000 | 2.5100 | 2.5100 |
| 17 | 1851 | <0.002 | 0.023 | 0.110 | 5.5000 | <0.5000 | 1.0300 | 2.8700 | 0.2600 | 3.1400 | 1.7800 | 9.0200 |
| 17 | 2013 | <0.002 | 0.025 | 0.130 | 8.1000 | <0.5000 | 1.5800 | 3.9200 | 0.2200 | 3.3800 | 2.0700 | 11.0000 |
| 17 | 2210 | <0.002 | 0.024 | 0.060 | 9.5000 | <0.5000 | 1.6700 | 2.3800 | 0.2400 | 1.7700 | 3.6400 | 5.5100 |
| 18 | 0630 | <0.002 | 0.019 | 0.040 | 6.0000 | <0.5000 | 1.1800 | 1.6000 | <0.2000 | 0.6900 | 2.3000 | 2.3700 |
| 18 | 1810 | <0.002 | 0.015 | 0.020 | 4.3000 | <0.5000 | 1.0300 | 1.1900 | <0.2000 | 0.3600 | 4.8900 | 4.9800 |
| December | | | | | | | | | | | | |
| 21 | 1125 | 0.003 | 0.027 | 0.080 | 5.7000 | <0.5000 | 1.1200 | 2.8600 | 0.4340 | 3.0700 | 2.9200 | 10.4000 |

## TABLE A2. Site 2, Paxton Creek Tributary Near Linglestown, Pa. (01570984)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temper-ature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conduct-ance µs/cm (00095) | Sus-pended Sedi-ment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1992 | | | | | | | | | | | | |
| 04 | 0945 | 11.0000 | 6.0 | 8.60 | 143.00 | 143 | 0.0200 | 0.0400 | <0.2000 | 0.8200 | 0.3300 | 1.170 |
| 04 | 1225 | 5.9000 | 6.0 | 8.40 | 152.00 | 45 | 0.0200 | 0.0500 | 0.2600 | 0.5500 | 0.4800 | 1.060 |
| 04 | 1530 | 4.1500 | 7.0 | 8.40 | 180.00 | 31 | 0.0200 | 0.0500 | <0.2000 | 0.3300 | 0.4800 | 0.840 |
| 05 | 1005 | 1.5500 | 6.5 | 8.30 | 225.00 | 7 | 0.0200 | 0.0300 | <0.2000 | <0.2000 | 0.9500 | 1.050 |
| 06 | 1110 | 1.2000 | 6.5 | 8.20 | 263.00 | 12 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.9100 | 1.010 |
| 16 | 1145 | 1.1200 | 1.0 | 8.00 | 260.00 | 2 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.9000 | 1.000 |
| February | | | | | | | | | | | | |
| 10 | 1015 | 0.3200 | 0.0 | 7.90 | 314.00 | 1 | <0.0200 | 0.0300 | <0.2000 | <0.2000 | 0.4200 | 0.520 |
| March | | | | | | | | | | | | |
| 11 | 0550 | 71.0000 | 8.0 | 7.20 | 114.00 | 293 | 0.0500 | 0.0800 | <0.2000 | 1.5300 | 0.9700 | 2.590 |
| 11 | 0715 | 44.0000 | 7.5 | 7.30 | 136.00 | 146 | 0.0300 | 0.0300 | 0.5100 | 1.1900 | 1.2100 | 2.420 |
| 11 | 1305 | 20.5000 | 6.0 | 7.20 | 177.00 | 36 | 0.0200 | 0.0200 | 0.2200 | 0.4500 | 1.4100 | 1.880 |
| 12 | 0720 | 8.6000 | 5.0 | 7.10 | 200.00 | 11 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 1.3200 | 1.420 |
| 13 | 1145 | 4.8000 | 6.0 | 7.10 | 206.00 | 2 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 1.1400 | 1.240 |
| 25 | 1030 | 2.6200 | 6.5 | 7.60 | 279.00 | 6 | 0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.8100 | 0.910 |
| April | | | | | | | | | | | | |
| 20 | 1040 | 0.8900 | 8.5 | 8.30 | 241.00 | 2 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.4000 | 0.500 |
| May | | | | | | | | | | | | |
| 12 | 0845 | 0.9800 | 13.5 | 8.10 | 245.00 | 3 | 0.0300 | 0.0400 | <0.2000 | 0.2000 | 0.4200 | 0.620 |
| 30 | 1945 | 3.9000 | 18.0 | 7.50 | 195.00 | 64 | 0.0500 | 0.0500 | 0.3000 | 0.5800 | 0.6400 | 1.240 |
| 30 | 2130 | 3.4000 | -- | 7.55 | 156.00 | 65 | 0.0600 | 0.0600 | 0.2500 | 0.4800 | 0.5300 | 1.010 |
| 30 | 2330 | 7.6000 | -- | 7.60 | 144.00 | 93 | 0.0600 | 0.0600 | 0.3600 | 0.7500 | 0.5300 | 1.300 |
| 31 | 0705 | 10.0000 | 15.5 | 7.45 | 170.00 | 51 | 0.1100 | 0.0700 | 0.4800 | 0.7600 | 0.7700 | 1.550 |
| 31 | 1800 | 2.6000 | -- | 7.50 | 267.00 | 9 | <0.0200 | <0.0200 | 0.2600 | 0.2600 | 0.8800 | 1.160 |
| June | | | | | | | | | | | | |
| 18 | 0845 | 0.4300 | 15.0 | -- | -- | 9 | 0.0200 | 0.0200 | <0.2000 | 0.2100 | 0.4400 | 0.650 |

TABLE A2. Site 2, Paxton Creek Tributary Near Linglestown, Pa. (01570984) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2+NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1992 | | | | | | | | | | | | |
| 03 | 1730 | 5.0000 | -- | 7.50 | 121.00 | 106 | 0.0800 | 0.1300 | <0.2000 | 0.6600 | 0.7000 | 1.390 |
| 03 | 1845 | 2.9000 | -- | 7.70 | 137.00 | 88 | 0.0700 | 0.0700 | <0.2000 | 0.5400 | 0.6800 | 1.220 |
| 03 | 2045 | 1.4000 | -- | 7.60 | 183.00 | 44 | 0.0800 | 0.1100 | 0.2600 | 0.4400 | 0.7700 | 1.210 |
| 04 | 0930 | 0.9000 | 18.0 | 7.70 | 262.00 | 12 | <0.0200 | 0.0500 | <0.2000 | 0.2400 | 0.7900 | 1.050 |
| 04 | 2210 | 0.5200 | 19.0 | 7.80 | 322.00 | 7 | 0.0500 | 0.0500 | <0.2000 | <0.2000 | 0.7500 | 0.850 |
| 15 | 1000 | 0.4300 | 20.5 | 7.80 | 310.00 | 4 | <0.0200 | 0.0200 | <0.2000 | 0.2800 | 0.6200 | 0.900 |
| August | | | | | | | | | | | | |
| 19 | 1145 | 0.1500 | 17.0 | 8.05 | -- | -- | 0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.4000 | 0.500 |
| 28 | 1925 | 104.0000 | 19.0 | 7.40 | 77.00 | 934 | 0.0800 | 0.0800 | 0.5100 | 2.1300 | 0.2600 | 2.640 |
| 28 | 2145 | 3.9000 | 20.0 | 7.30 | 155.00 | 474 | 0.0800 | 0.1100 | 0.8200 | 1.7800 | 0.4800 | 2.880 |
| 28 | 2320 | 1.6000 | 19.5 | 7.30 | 202.00 | 207 | 0.0700 | 0.0900 | 0.8500 | 1.7100 | 0.5700 | 3.050 |
| 29 | 0945 | 0.4900 | 18.0 | 7.60 | 352.00 | 24 | 0.0300 | 0.0300 | 0.3200 | 0.4200 | 0.3100 | 0.730 |
| 30 | 1300 | 0.2500 | 16.5 | 7.90 | 409.00 | 1 | 0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.2200 | 0.320 |
| September | | | | | | | | | | | | |
| 21 | 0915 | 0.1500 | 15.5 | 7.95 | 345.00 | 1 | 0.0200 | 0.0200 | 0.5600 | 0.5600 | 0.5500 | 1.070 |
| October | | | | | | | | | | | | |
| 15. | 1020 | 0.4800 | 11.0 | 7.40 | 369.00 | 25 | 0.0500 | 0.0600 | <0.2000 | 0.2100 | 0.7900 | 1.000 |
| November | | | | | | | | | | | | |
| 18 | 0930 | 1.6500 | 8.0 | 8.00 | 240.00 | 8 | 0.0700 | .1000 | 0.3100 | <0.2000 | 0.5900 | 0.690 |
| December | | | | | | | | | | | | |
| 09 | 0940 | 0.6600 | 3.5 | 6.50 | 271.00 | 7 | 0.0200 | 0.0400 | <0.2000 | <0.2000 | 0.4800 | 0.580 |
| 17 | 0550 | 8.5000 | 4.0 | 7.60 | 208.00 | 108 | 0.0400 | 0.0500 | 0.3000 | 0.6500 | 0.6200 | 1.290 |
| 17 | 0850 | 22.5000 | 5.0 | 7.50 | 130.00 | 112 | 0.0500 | 0.0300 | 0.3800 | 1.0700 | 0.4400 | 1.510 |
| 17 | 1320 | 15.5000 | 6.0 | 7.40 | 141.00 | 32 | 0.0300 | 0.0300 | 0.2900 | 0.5300 | 0.6200 | 1.170 |
| 18 | 0555 | 4.3000 | 5.5 | 7.60 | 218.00 | 8 | 0.0200 | 0.0200 | 0.2000 | 0.2300 | 0.8800 | 1.110 |
| 19 | 1410 | 2.9000 | 7.5 | 7.50 | 212.00 | 9 | <0.0200 | 0.0300 | <0.2000 | <0.2000 | 0.7900 | 0.890 |

TABLE A2. Site 2, Paxton Creek Tributary Near Linglestown, Pa. (01570984) (Continued)

| Date | Time | Discharge, Instantaneous | Temperature | pH Water, Whole Field | Specific Conductance | Suspended Sediment | Nitrogen, Ammonia, Dissolved | Nitrogen, Ammonia, Total | Nitrogen, Kjeldahl, Dissolved | Nitrogen, Kjeldahl, Total | Nitrogen, $NO_2$+$NO_3$, Dissolved | Nitrogen, Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | cubic ft per sec. (00061) | degrees Celsius (00010) | std. units (00400) | µs/cm (00095) | mg/l (80154) | mg/l as N (00608) | mg/l as N (00610) | mg/l as N (00623) | mg/l as N (00625) | mg/l as N (00631) | mg/l as N (00600) |
| January 1993 | | | | | | | | | | | | |
| 11 | 1055 | 1.5300 | 4.0 | 7.00 | 480.00 | 1 | <0.0200 | 0.0300 | 0.2300 | 0.3100 | 0.6200 | 0.930 |
| February | | | | | | | | | | | | |
| 09 | 1000 | 0.6700 | 0.5 | 8.05 | 268.00 | 6 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.3700 | 0.470 |
| March | | | | | | | | | | | | |
| 04 | 1018 | 17.9000 | 3.5 | 6.90 | 350.00 | 316 | <0.0200 | 0.0300 | 0.3300 | 1.7100 | 0.8600 | 2.570 |
| 04 | 1525 | 38.5000 | 2.0 | 6.80 | 212.00 | 214 | 0.0200 | 0.0200 | 0.5100 | 1.6300 | 0.9200 | 2.580 |
| 04 | 2015 | 36.5000 | 1.5 | 7.00 | 215.00 | 93 | 0.0300 | 0.0400 | 0.3300 | 0.7700 | 0.9500 | 1.830 |
| 05 | 1005 | 17.9000 | 3.5 | 7.20 | 275.00 | 17 | <0.0200 | 0.0400 | 0.2200 | 0.3300 | 1.1900 | 1.520 |
| 06 | 1215 | 10.6000 | 5.5 | 7.00 | 274.00 | 7 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 1.1700 | 1.270 |
| 22 | 1250 | 4.2500 | 6.0 | 8.00 | 230.00 | 5 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.6200 | 0.720 |
| April | | | | | | | | | | | | |
| 28 | 1155 | 4.9200 | 12.5 | 6.80 | 227.00 | 8 | 0.0600 | 0.0700 | 2.0600 | 2.1220 | 0.6600 | 2.802 |
| 28 | 1200 | 4.9200 | 12.5 | 6.80 | 227.00 | 7 | 0.0600 | 0.0800 | 2.0900 | 2.1900 | 0.6600 | 2.870 |
| May | | | | | | | | | | | | |
| 05 | 1045 | 7.5000 | 14.0 | 7.90 | 140.00 | 60 | 0.0800 | 0.1000 | 0.3800 | 0.7100 | 0.4600 | 1.190 |
| 05 | 1930 | 21.5000 | 16.5 | 7.50 | 105.00 | 261 | 0.0900 | 0.2700 | 0.5500 | 1.9500 | 0.4600 | 2.430 |
| 05 | 2055 | 10.5000 | 15.0 | 7.60 | 135.00 | 100 | 0.0600 | 0.1600 | 0.3900 | 0.9200 | 0.5100 | 1.450 |
| 06 | 0825 | 3.7000 | 13.0 | 7.80 | 190.00 | 13 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.5500 | 0.650 |
| 07 | 0935 | 3.0000 | 13.0 | 8.00 | 205.00 | 5 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.4800 | 0.580 |
| 18 | 1135 | 0.8800 | 12.0 | 8.15 | 195.00 | 4 | 0.0300 | 0.0300 | <0.2000 | <0.2000 | 0.4200 | 0.520 |
| 18 | 1140 | 0.8800 | 12.0 | 8.15 | 195.00 | -- | 0.0200 | 0.0300 | 0.2000 | <0.2000 | 0.4000 | 0.500 |
| June | | | | | | | | | | | | |
| 23 | 1240 | 0.3100 | 18.0 | 7.55 | 374.00 | 5 | <0.0200 | <0.0200 | 0.2800 | 0.3200 | 0.8100 | 1.130 |

# TABLE A2. Site 2, Paxton Creek Tributary Near Linglestown, Pa. (01570984) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2+NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1993 | | | | | | | | | | | | |
| 02 | 0935 | 16.5000 | 18.0 | 7.40 | 146.00 | 322 | 0.1000 | 0.1000 | 0.2800 | 1.7100 | 0.8400 | 2.570 |
| 02 | 1100 | 5.0000 | 18.5 | 7.10 | 18.00 | 97 | 0.0800 | 0.1100 | 0.2500 | 0.5700 | 0.6800 | 1.250 |
| 02 | 1425 | 25.5000 | 19.0 | 7.40 | 136.00 | 261 | 0.1300 | 0.1600 | 0.3700 | 1.3200 | 0.7900 | 2.130 |
| 02 | 1900 | 12.0000 | 19.0 | 7.20 | 172.00 | 45 | 0.0400 | 0.0600 | 0.3800 | 0.7400 | 0.8800 | 1.640 |
| 03 | 1030 | 2.1000 | 18.0 | 7.30 | 345.00 | 4 | <0.0200 | 0.0400 | <0.2000 | 0.2200 | 1.3200 | 1.540 |
| 15 | 1120 | 0.1300 | 22.0 | 7.45 | 320.00 | -- | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.4600 | 0.560 |
| 15 | 1125 | 0.1300 | 22.0 | 7.45 | 320.00 | 9 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.4600 | 0.560 |
| August | | | | | | | | | | | | |
| 19 | 1505 | 0.1300 | 21.0 | 8.10 | 360.00 | 7 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.4400 | 0.540 |
| September | | | | | | | | | | | | |
| 29 | 1225 | 0.7100 | 14.0 | 7.70 | 410.00 | 0 | <0.0200 | 0.0200 | 0.3300 | 0.3300 | 1.6300 | 1.960 |
| 29 | 1230 | 0.7100 | 14.0 | 7.70 | 410.00 | -- | <0.0200 | <0.0200 | 0.3300 | 0.3300 | 1.6500 | 1.980 |
| October | | | | | | | | | | | | |
| 20 | 1150 | 0.2700 | 12.5 | 7.40 | 375.00 | 1 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.2900 | 0.390 |
| November | | | | | | | | | | | | |
| 16 | 1205 | 0.2420 | 11.0 | 7.70 | 360.00 | 5 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.1500 | 0.250 |
| 17 | 1900 | 14.5000 | 11.5 | 7.55 | 121.00 | 137 | 0.1100 | 0.0200 | 0.3900 | 1.1900 | 0.5700 | 1.780 |
| 17 | 2028 | 6.0000 | 11.0 | 7.50 | 151.00 | 93 | 0.0700 | 0.0300 | 0.7300 | 1.0600 | 0.6200 | 1.680 |
| 17 | 2220 | 3.7000 | 10.5 | 7.40 | 180.00 | 56 | 0.0300 | 0.0200 | 0.7100 | 1.0100 | 0.6800 | 1.690 |
| 18 | 0640 | 1.6000 | 9.0 | 7.50 | 256.00 | 10 | <0.0200 | <0.0200 | 0.4100 | 0.4600 | 0.9000 | 1.360 |
| 18 | 1825 | 0.9800 | 9.5 | -- | -- | 2 | <0.0200 | 0.0300 | <0.2000 | 0.2000 | 0.9000 | 1.100 |
| December | | | | | | | | | | | | |
| 21 | 1150 | 18.5000 | 5.0 | 7.70 | 115.00 | 44 | <0.0200 | 0.0500 | 0.3800 | 0.5600 | 0.4600 | 1.040 |

TABLE A2. Site 2, Paxton Creek Tributary Near Linglestown, Pa. (01570984) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1992 | | | | | | | | | | | | |
| 04 | 0945 | 0.009 | 0.020 | 0.150 | 4.3000 | <0.5000 | 1.8700 | 5.0500 | 0.2200 | 4.7100 | 9.3500 | 65.9000 |
| 04 | 1225 | 0.008 | 0.020 | 0.070 | 7.4000 | <0.5000 | 2.4400 | 2.8700 | 0.7400 | 1.7600 | 10.9500 | 25.3000 |
| 04 | 1530 | 0.007 | 0.020 | 0.050 | 6.2000 | <0.5000 | 1.7500 | 1.9200 | 0.7700 | 1.2200 | 8.5000 | 15.3000 |
| 05 | 1005 | 0.004 | 0.020 | 0.020 | 3.0000 | <0.5000 | 1.4600 | 1.3100 | 0.9600 | 0.9400 | 6.7300 | 11.6000 |
| 06 | 1110 | 0.003 | <0.020 | 0.020 | 2.1000 | <0.5000 | 0.9800 | 0.9700 | 0.9100 | 1.0300 | 5.6100 | 6.6500 |
| 16 | 1145 | 0.002 | <0.020 | 0.020 | 2.0000 | -- | <0.8000 | 0.8210 | <0.2000 | 0.2380 | 3.5600 | 4.9000 |
| February | | | | | | | | | | | | |
| 10 | 1015 | <0.002 | 0.020 | 0.020 | 1.4000 | 1.0000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 2.7600 | 3.3600 |
| March 11 | | | | | | | | | | | | |
| 11 | 0550 | 0.018 | 0.040 | 0.270 | 12.2000 | <0.5000 | 2.8100 | 5.9000 | 0.2660 | 7.1300 | 9.5800 | 69.0000 |
| 11 | 0715 | 0.004 | 0.030 | 0.140 | 9.8000 | <0.5000 | 1.8800 | 3.5400 | <0.2000 | 3.3100 | 10.6000 | 45.5000 |
| 11 | 1305 | <0.002 | 0.030 | 0.070 | 5.4000 | <0.5000 | 1.3900 | 1.6600 | <0.2000 | 0.9960 | 10.9000 | 24.6000 |
| 12 | 0720 | <0.002 | 0.020 | 0.030 | 2.8000 | <0.5000 | <0.8000 | 0.9750 | <0.2000 | 0.4230 | 11.0000 | 17.8000 |
| 13 | 1145 | <0.002 | 0.020 | 0.020 | 2.1000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | 0.2320 | 8.9500 | 11.6000 |
| 25 | 1030 | 0.004 | 0.020 | 0.020 | 1.7000 | <0.5000 | 1.0300 | 1.0300 | <0.2000 | <0.2000 | 8.8900 | 11.2000 |
| April | | | | | | | | | | | | |
| 20 | 1040 | 0.006 | 0.020 | 0.020 | 1.5000 | 0.5800 | <0.8000 | <0.8000 | <0.2000 | 0.2070 | 2.0600 | 2.1600 |
| May | | | | | | | | | | | | |
| 12 | 0845 | 0.002 | 0.020 | 0.020 | 1.5000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | 0.9000 | 2.5300 | 2.7500 |
| 30 | 1945 | 0.007 | 0.030 | 0.070 | 4.6000 | <0.5000 | <0.8000 | 2.1300 | <0.2000 | 1.9400 | 3.8400 | 33.9000 |
| 30 | 2130 | 0.008 | 0.030 | 0.060 | 4.0000 | <0.5000 | 0.9780 | 2.3500 | 0.2940 | 1.8300 | 4.8800 | 33.9000 |
| 30 | 2330 | 0.010 | 0.040 | 0.100 | 4.8000 | <0.5000 | 1.0200 | 3.4600 | <0.2000 | 2.5400 | 4.4900 | 46.3000 |
| 31 | 0705 | 0.009 | 0.040 | 0.070 | 8.4000 | <0.5000 | 1.6200 | 2.6000 | <0.2000 | 1.2600 | 8.5400 | 29.0000 |
| 31 | 1800 | 0.005 | 0.020 | 0.030 | 4.1000 | <0.5000 | <0.8000 | 0.9200 | <0.2000 | 0.2900 | 4.6800 | 8.7500 |
| June | | | | | | | | | | | | |
| 18 | 0845 | 0.012 | 0.020 | 0.040 | 1.7000 | <0.5000 | 1.0400 | 1.0400 | <0.2000 | <0.2000 | 1.3200 | 2.8100 |

TABLE A2. Site 2, Paxton Creek Tributary Near Linglestown, Pa. (01570984) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1992 | | | | | | | | | | | | |
| 03 | 1730 | 0.014 | 0.030 | 0.130 | 4.8000 | <0.5000 | 2.0800 | 4.8100 | 0.2200 | 3.1800 | 4.8800 | 49.1000 |
| 03 | 1845 | 0.014 | 0.031 | 0.110 | 5.2000 | <0.5000 | 1.9300 | 4.5300 | <0.2000 | 2.6100 | 4.1700 | 37.0000 |
| 03 | 2045 | 0.012 | 0.030 | 0.080 | 5.9000 | <0.5000 | 2.3500 | 3.3100 | 1.6800 | 1.2500 | 6.0800 | 20.6000 |
| 04. | 0930 | 0.011 | 0.024 | 0.040 | 4.0000 | <0.5000 | 1.6000 | 1.7800 | <0.2000 | 0.4300 | 3.1000 | 8.3200 |
| 04 | 2210 | 0.013 | 0.024 | 0.030 | 2.6000 | <0.5000 | 1.1000 | 1.1000 | <0.2000 | 0.2900 | 1.6700 | 5.0700 |
| 15 | 1000 | 0.010 | 0.040 | 0.040 | 2.2000 | <0.5000 | 1.2900 | .9200 | 0.5400 | 0.3000 | 2.4300 | 4.4000 |
| August | | | | | | | | | | | | |
| 19 | 1145 | <0.002 | 0.003 | 0.030 | 1.6000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | <1.0000 | 2.0500 |
| 28 | 1925 | 0.067 | 0.103 | 0.720 | 6.2000 | 0.8000 | 2.2200 | 11.4000 | <0.2000 | 9.8600 | 4.8700 | 264.0000 |
| 28 | 2145 | 0.042 | 0.083 | 0.430 | 8.2000 | <0.5000 | 2.5000 | 8.6900 | <0.2000 | 5.8100 | 3.0500 | 64.9000 |
| 28 | 2320 | 0.033 | 0.075 | 0.260 | 8.4000 | 0.5000 | 2.8200 | 5.9900 | <0.2000 | 2.7500 | 3.4000 | 33.5000 |
| 29 | 0945 | 0.022 | 0.049 | 0.070 | 4.0000 | <0.5000 | 3.6700 | 3.9400 | <0.2000 | 0.6100 | 5.3600 | 9.3100 |
| 30 | 1300 | 0.014 | 0.033 | 0.040 | 2.1000 | <0.5000 | 1.0200 | 1.1600 | <0.2000 | 0.2160 | 1.3600 | 2.6500 |
| September | | | | | | | | | | | | |
| 21 | 0915 | 0.014 | 0.030 | 0.040 | 2.5000 | <0.5000 | 0.8210 | 0.8210 | <0.2000 | <0.2000 | 2.7000 | 2.8300 |
| October | | | | | | | | | | | | |
| 15 | 1020 | 0.003 | 0.023 | 0.020 | 1.9000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 4.0300 | 4.4100 |
| November | | | | | | | | | | | | |
| 18 | 0930 | <0.002 | 0.017 | 0.020 | 1.7000 | <0.5000 | <0.8000 | <0.8000 | -- | <0.2000 | 3.8100 | 3.8100 |
| December | | | | | | | | | | | | |
| 09 | 0940 | 0.004 | 0.018 | <0.020 | 1.4000 | 0.7000 | 2.8700 | 3.0300 | <0.2000 | 0.3000 | 3.7900 | 3.7900 |
| 17 | 0550 | 0.002 | 0.028 | 0.120 | 3.9000 | <0.5000 | 0.8020 | 3.1500 | 2.3000 | 2.3000 | 30.6000 | 68.3000 |
| 17 | 0850 | 0.004 | 0.040 | 0.160 | 6.8000 | 0.5900 | 2.8000 | 4.6900 | 3.4000 | 3.4000 | 12.1000 | 63.9000 |
| 17 | 1320 | 0.004 | 0.040 | 0.079 | 6.2000 | <0.5000 | 1.5600 | 4.3400 | 0.4000 | 0.4000 | 14.2000 | 66.3000 |
| 18 | 0555 | 0.002 | 0.022 | 0.037 | 2.8000 | <0.5000 | <0.8000 | 1.6500 | <0.2000 | <0.2000 | 14.3000 | 83.5000 |
| 19 | 1410 | 0.002 | 0.018 | 0.032 | 1.9000 | <0.5000 | 0.8000 | 0.8710 | <0.2000 | <0.2000 | 8.2100 | 64.7000 |

TABLE A2. Site 2, Paxton Creek Tributary Near Linglestown, Pa. (01570984) (Continued)

| Date | Time | Phosphorus, Ortho, Dissolved | Phosphorus, Dissolved | Phosphorus, Total | Carbon, Organic, Total | Oil and Grease, Total, Recoverable Electrometric | Copper, Dissolved | Copper, Total, Recoverable | Lead, Dissolved | Lead, Total, Recoverable | Zinc, Dissolved | Zinc, Total, Recoverable |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mg/l as P (00671) | mg/l as P (00666) | mg/l. as P (00665) | mg/l as C (00680) | mg/l (00560) | µg/l as Cu (01040) | µg/l (01119) | µg/l as Pb (01049) | µg/l (01114) | µg/l as Zn (01090) | µg/l (01094) |
| January 1993 | | | | | | | | | | | | |
| 11 | 1055 | 0.004 | 0.017 | 0.020 | 1.6000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 6.9000 | 7.2100 |
| February | | | | | | | | | | | | |
| 09 | 1000 | 0.002 | 0.015 | 0.020 | 1.2000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 4.2200 | 4.2200 |
| March | | | | | | | | | | | | |
| 04 | 1018 | <0.002 | 0.025 | 0.270 | 5.6000 | <0.5000 | 1.9000 | 9.5500 | <0.2000 | 9.2600 | 12.4000 | 167.0000 |
| 04 | 1525 | 0.002 | 0.028 | 0.280 | 5.7000 | <0.5000 | 1.4800 | 6.1400 | <0.2000 | 5.9400 | 9.1300 | 77.2000 |
| 04 | 2015 | 0.003 | 0.026 | 0.100 | 5.7000 | <0.5000 | 1.2500 | 2.9900 | <0.2000 | 1.8500 | 11.2000 | 36.5000 |
| 05 | 1005 | <0.002 | 0.022 | 0.040 | 3.9000 | <0.5000 | 1.2900 | 1.3800 | 0.2080 | 0.4540 | 19.6000 | 25.7000 |
| 06 | 1215 | <0.002 | 0.017 | 0.030 | 2.8000 | <0.5000 | 0.9250 | 1.0800 | <0.2000 | 0.2410 | 16.5000 | 21.9000 |
| 22 | 1250 | <0.010 | 0.018 | 0.020 | 1.5000 | <0.5000 | <0.8000 | <0.8000 | 0.2200 | 0.2200 | 11.5000 | 11.5000 |
| April | | | | | | | | | | | | |
| 28 | 1155 | 0.012 | 0.031 | 0.040 | 2.0000 | <0.5000 | 5.9100 | 9.1400 | <0.2000 | 0.3000 | 8.7000 | 15.3000 |
| 28 | 1200 | 0.013 | 0.033 | 0.040 | 2.0000 | <0.5000 | 6.1900 | 8.9400 | <0.2000 | 0.3290 | 9.2600 | 14.2000 |
| May | | | | | | | | | | | | |
| 05 | 1045 | <0.002 | 0.021 | 0.080 | 6.4000 | 0.5900 | 1.6700 | 2.6200 | <0.2000 | 1.7800 | 9.0100 | 29.7000 |
| 05 | 1930 | <0.002 | 0.024 | 0.300 | 10.5000 | <0.5000 | 2.2200 | 7.5200 | 0.2730 | 7.2900 | 7.6900 | 94.8000 |
| 05 | 2055 | <0.002 | 0.023 | 0.140 | 9.7000 | 0.7300 | 1.9700 | 3.6100 | 0.2410 | 2.6600 | 11.7000 | 40.6000 |
| 06 | 0825 | <0.002 | 0.015 | 0.030 | 3.3000 | <0.5000 | <0.8000 | 0.9130 | <0.2000 | 0.2480 | 4.6500 | 10.7000 |
| 07 | 0935 | <0.002 | 0.018 | 0.030 | 1.8000 | 2.5000 | 0.9400 | 1.1000 | <0.2000 | 0.3300 | 4.0000 | 7.2600 |
| 18 | 1135 | <0.002 | 0.019 | 0.030 | 1.7000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 1.8200 | 3.6900 |
| 18 | 1140 | <0.002 | 0.017 | 0.020 | 1.6000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 2.2900 | 2.2900 |
| June | | | | | | | | | | | | |
| 23 | 1240 | 0.017 | 0.020 | 0.050 | 2.1000 | 1.2000 | 0.8790 | 1.1300 | <0.2000 | 0.3170 | 5.2200 | 5.2400 |

TABLE A2. Site 2, Paxton Creek Tributary Near Linglestown, Pa. (01570984) (Continued)

| Date | Time | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1993 | | | | | | | | | | | | |
| 02 | 0935 | <0.002 | 0.030 | 0.320 | 4.7000 | <0.5000 | 0.8540 | 3.1300 | <0.2000 | 2.9600 | 6.9100 | 53.6000 |
| 02 | 1100 | <0.002 | 0.037 | 0.090 | 4.4000 | <0.5000 | 1.4400 | 3.9600 | <0.2000 | 3.1100 | 4.5500 | 46.7000 |
| 02 | 1425 | <0.002 | 0.041 | 0.230 | 6.8000 | <0.5000 | 3.1100 | 6.6300 | 0.2170 | 5.8400 | 4.6000 | 83.1000 |
| 02 | 1900 | <0.002 | 0.047 | 0.100 | 8.2000 | <0.5000 | 3.3400 | 3.9300 | 0.2200 | 1.4400 | 8.3700 | 27.3000 |
| 03 | 1030 | <0.002 | 0.026 | 0.040 | 4.2000 | <0.5000 | 1.1600 | 1.2500 | <0.2000 | 0.3220 | 3.3100 | 7.0700 |
| 15 | 1120 | 0.011 | 0.028 | 0.050 | 1.6000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 2.4700 | 3.9500 |
| 15 | 1125 | 0.011 | 0.024 | 0.060 | 1.6000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 2.3500 | 2.7800 |
| August | | | | | | | | | | | | |
| 19 | 1505 | 0.004 | 0.020 | 0.020 | 1.9000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 1.4800 | 2.4700 |
| September | | | | | | | | | | | | |
| 29 | 1225 | 0.013 | 0.028 | 0.030 | 3.2000 | <0.5000 | 1.2320 | 3.5100 | <0.2000 | 2.2600 | 2.4900 | 3.9000 |
| 29 | 1230 | 0.013 | 0.028 | 0.030 | 2.8000 | -- | 0.9310 | 0.9710 | <0.2000 | <0.2000 | 3.0800 | 4.2600 |
| October | | | | | | | | | | | | |
| 20 | 1150 | 0.004 | 0.023 | 0.020 | 2.9000 | <0.5000 | 0.8100 | 0.8100 | <0.2000 | <0.2000 | 1.9100 | 2.3900 |
| November | | | | | | | | | | | | |
| 16 | 1205 | <0.002 | 0.022 | 0.030 | 2.2000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 1.0900 | 1.2400 |
| 17 | 1900 | 0.042 | 0.102 | 0.280 | 11.1000 | <0.5000 | 2.1300 | 5.6200 | 0.2800 | 4.3800 | 7.8500 | 56.6000 |
| 17 | 2028 | 0.048 | 0.111 | 0.230 | 13.2000 | <0.5000 | 2.3000 | 4.5400 | 0.2000 | 2.5800 | 6.2300 | 28.8000 |
| 17 | 2220 | 0.009 | 0.089 | 0.170 | 13.0000 | <0.5000 | 2.2400 | 3.9100 | <0.2000 | 1.8700 | 6.8500 | 75.1000 |
| 18 | 0640 | 0.003 | 0.035 | 0.050 | 6.1000 | <0.5000 | 1.4800 | 1.9900 | <0.2000 | 0.6200 | 3.8800 | 8.5600 |
| 18 | 1825 | <0.002 | 0.019 | 0.030 | 3.6000 | <0.5000 | 0.9700 | 1.1500 | <0.2000 | 0.3700 | 3.4700 | 4.7200 |
| December | | | | | | | | | | | | |
| 21 | 1150 | 0.007 | 0.040 | 0.070 | 6.8000 | <0.5000 | 1.2000 | 2.5900 | <0.2000 | 1.6100 | 7.2500 | 19.4000 |

TABLE A3. Site 3, Stormwater Management Pond No. 1 Near Linglestown, Pa. (01570988)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2+NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1992 | | | | | | | | | | | | |
| 04 | 1015 | 0.0500 | 5.5 | 8.30 | 142.00 | 79 | 0.0200 | 0.0400 | <0.2000 | 0.6800 | 0.0900 | 0.790 |
| 04 | 1250 | 0.0770 | 5.5 | 8.00 | 133.00 | 91 | 0.0200 | 0.0500 | <0.2000 | 0.8300 | 0.0900 | 0.920 |
| 04 | 1605 | 0.0750 | 6.0 | 8.00 | 132.00 | 148 | <0.0200 | 0.0400 | <0.2000 | 0.6400 | 0.0900 | 0.730 |
| 05 | 1035 | 0.0340 | 5.5 | 8.00 | 141.00 | 91 | <0.0200 | 0.0400 | <0.2000 | 0.6600 | 0.0700 | 0.750 |
| 06 | 1140 | 0.0150 | 6.0 | 8.00 | 150.00 | 89 | 0.0200 | 0.0400 | <0.2000 | 0.5600 | 0.0700 | 0.630 |
| March | | | | | | | | | | | | |
| 11 | 0610 | 0.3000 | 9.0 | 7.50 | 78.00 | 448 | 0.0700 | 0.0700 | <0.2000 | 1.3600 | 0.3100 | 1.710 |
| 11 | 0730 | 0.3700 | 8.5 | 7.40 | 78.00 | 412 | 0.0700 | 0.0800 | <0.2000 | 1.3100 | 0.3300 | 1.680 |
| 11 | 1330 | 0.2200 | 8.5 | 7.20 | 84.00 | 352 | 0.0600 | 0.0700 | <0.2000 | 1.1800 | 0.3300 | 1.550 |
| 12 | 0745 | 0.0610 | 4.0 | 7.30 | 99.00 | 195 | 0.0700 | 0.0700 | <0.2000 | 1.1000 | 0.3500 | 1.470 |
| 13 | 1210 | 0.0140 | 6.0 | 7.30 | 126.00 | 131 | 0.0900 | 0.2400 | <0.2000 | 1.1000 | 0.5100 | 1.610 |
| 25 | 1150 | 0.0019 | -- | 7.30 | 194.00 | 35 | 0.0400 | 0.0600 | <0.2000 | 0.4400 | 0.4400 | 0.900 |
| May | | | | | | | | | | | | |
| 12 | 0945 | 0.0013 | 17.0 | 8.20 | 135.00 | 12 | 0.0700 | 0.1000 | 0.3800 | 0.7100 | 0.1100 | 0.820 |
| 30 | 2010 | 0.0520 | 16.5 | 8.70 | 147.00 | 30 | <0.0200 | 0.1000 | 0.7000 | 1.8800 | <0.0400 | 1.880 |
| 30 | 2200 | 0.0740 | -- | 8.55 | 122.00 | 32 | <0.0200 | <0.0200 | 0.5700 | 1.4400 | 0.1100 | 1.550 |
| 30 | 2355 | 0.0890 | -- | 8.45 | 122.00 | 31 | 0.0200 | 0.0600 | 0.4800 | 1.2400 | 0.1100 | 1.350 |
| 31 | 0735 | 0.1340 | 17.0 | 8.25 | 112.00 | 30 | 0.0300 | 0.0400 | 0.4800 | 0.8800 | 0.1800 | 1.080 |
| 31 | 1840 | 0.0390 | 22.5 | 8.40 | 117.00 | 29 | <0.0200 | 0.0200 | 0.3600 | 1.0300 | 0.0700 | 1.100 |
| July | | | | | | | | | | | | |
| 03 | 1700 | 0.0390 | -- | 7.60 | 114.00 | 63 | <0.0200 | 0.0400 | 0.4000 | 2.0100 | 0.1500 | 2.190 |
| 03 | 1830 | 0.0370 | -- | 7.60 | 132.00 | 73 | 0.1200 | 0.1200 | 0.4700 | 2.4400 | <0.0400 | 2.440 |
| 03 | 2010 | 0.0330 | -- | 7.30 | 120.00 | 42 | 0.0200 | 0.1000 | 0.3800 | 1.9600 | 0.1100 | 2.070 |
| 04 | 0910 | 0.0450 | 20.5 | 7.60 | 107.00 | 57 | 0.0400 | 0.0700 | 0.3300 | 1.7100 | 0.2000 | 1.910 |
| 04 | 2140 | 0.0067 | 25.0 | 8.40 | 102.00 | 46 | 0.1100 | 0.2500 | 0.3500 | 2.0300 | <0.0400 | 2.030 |

## TABLE A3. Site 3, Stormwater Management Pond No. 1 Near Linglestown, Pa. (01570988) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| August 1992 | | | | | | | | | | | | |
| 28 | 1915 | 0.2200 | 20.5 | 8.30 | 61.00 | 481 | <0.0200 | 0.0200 | 0.2400 | 3.3000 | <0.0400 | 3.300 |
| 28 | 2125 | 0.1900 | 20.5 | 8.10 | 63.00 | 308 | <0.0200 | 0.0200 | <0.2000 | 1.4600 | <0.0400 | 1.460 |
| 28 | 2305 | 0.1900 | 20.0 | 7.90 | 62.00 | 283 | <0.0200 | 0.0200 | 0.2100 | 1.6500 | <0.0400 | 1.690 |
| 29 | 0910 | 0.0670 | 21.0 | 7.80 | 68.00 | 161 | <0.0200 | <0.0200 | 0.2400 | 1.4000 | <0.0400 | 1.400 |
| 30 | 1130 | 0.0018 | 21.0 | 7.60 | 85.00 | 68 | <0.0200 | 0.0200 | 0.2500 | 1.2900 | <0.0400 | 1.290 |
| December | | | | | | | | | | | | |
| 17 | 0525 | 0.0350 | 4.0 | 7.35 | 395.00 | 226 | 0.3900 | 0.4500 | 0.9500 | 1.9100 | 0.3100 | 2.240 |
| 17 | 0830 | 0.1500 | 4.0 | 7.20 | 268.00 | 201 | 0.4200 | 0.4000 | 0.8400 | 1.6800 | 0.2600 | 1.990 |
| 17 | 1250 | 0.1900 | 4.5 | 6.85 | 217.00 | 182 | 0.2800 | 0.3300 | 0.7200 | 1.5100 | 0.2900 | 1.820 |
| 18 | 0530 | 0.0560 | 2.5 | 6.80 | 239.00 | 139 | 0.3000 | 0.3300 | 0.7900 | 1.3800 | 0.2600 | 1.690 |
| 19 | 1350 | 0.0037 | 5.5 | 6.80 | 288.00 | 288 | 0.4000 | 0.4000 | 1.0600 | 1.5100 | 0.2900 | 1.820 |
| January 1993 | | | | | | | | | | | | |
| 11 | 0935 | 0.0095 | 2.0 | 8.10 | 345.00 | 83 | 0.1700 | 0.6400 | 0.6400 | 1.3000 | 0.2900 | 1.610 |
| February | | | | | | | | | | | | |
| 09 | 1040 | 0.0028 | 0.5 | 8.45 | 847.00 | 17 | <0.0200 | 0.1200 | 0.8200 | 0.96000 | 0.2200 | 1.180 |
| March | | | | | | | | | | | | |
| 04 | 1000 | 0.1200 | 2.0 | 7.25 | 670.00 | 123 | <0.0200 | <0.0200 | 0.7800 | 1.3000 | 0.4600 | 1.780 |
| 04 | 1505 | 0.4800 | 1.0 | 7.50 | 420.00 | -- | <0.0200 | 0.0500 | 0.4400 | 0.8800 | 0.4200 | 1.300 |
| 04 | 1945 | 0.5600 | 1.0 | 7.55 | 322.00 | 104 | <0.0200 | 0.0200 | 0.4800 | 0.6700 | 0.3500 | 1.070 |
| 05 | 0940 | 0.1200 | 2.0 | 7.40 | 340.00 | 58 | <0.0200 | 0.0400 | 0.2500 | 0.5100 | 0.4400 | 0.950 |
| 06 | 1140 | 0.0950 | 5.5 | 7.50 | 405.00 | 42 | <0.0200 | 0.0200 | 0.2900 | 0.4500 | 0.8400 | 1.290 |
| 22 | 1145 | 0.0370 | 3.0 | 7.60 | 360.00 | 38 | <0.0200 | 0.0200 | 0.3100 | 0.4900 | 0.3300 | 0.840 |
| April | | | | | | | | | | | | |
| 28 | 1100 | 0.0210 | 13.5 | 7.00 | 127.00 | 137 | <0.0200 | <0.0200 | <0.2000 | 0.9900 | 0.2000 | 1.230 |

TABLE A3. Site 3, Stormwater Management Pond No. 1 Near Linglestown, Pa. (01570988) (Continued)

| Date | Time | Discharge, Instantaneous | Temperature | pH Water, Whole Field | Specific Conductance | Suspended Sediment | Nitrogen, Ammonia, Dissolved | Nitrogen, Ammonia, Total | Nitrogen, Kjeldahl, Dissolved | Nitrogen, Kjeldahl, Total | Nitrogen, $NO_2+NO_3$, Dissolved | Nitrogen, Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | cubic ft per sec. (00061) | degrees Celsius (00010) | std. units (00400) | µs/cm (00095) | mg/l (80154) | mg/l as N (00608) | mg/l as N (00610) | mg/l as N (00623) | mg/l as N (00625) | mg/l as N (00631) | mg/l as N (00600) |
| May 1993 | | | | | | | | | | | | |
| 05 | 1010 | 0.0290 | 16.5 | 8.20 | 135.00 | 81 | 0.0700 | 0.1700 | 0.3000 | 1.1500 | 0.2200 | 1.410 |
| 05 | 1900 | 0.0480 | 19.0 | 8.10 | 125.00 | 175 | <0.0200 | 0.2100 | 0.3100 | 0.9900 | 0.2800 | 1.300 |
| 05 | 2030 | 0.0480 | 19.0 | 7.70 | 140.00 | 190 | 0.0200 | 0.3000 | 0.2400 | 1.0200 | 0.3300 | 1.370 |
| 06 | 0750 | 0.0270 | 16.0 | 8.40 | 210.00 | 104 | 0.0200 | 0.3500 | 0.3200 | 2.0500 | 0.3300 | 2.400 |
| 07 | 0905 | 0.0056 | 17.5 | 8.20 | 143.00 | 82 | 0.0300 | 0.1600 | 0.3600 | 1.2500 | 0.2000 | 1.450 |
| June | | | | | | | | | | | | |
| 23 | 1200 | 0.0021 | -- | 6.95 | 127.00 | 240 | 0.1200 | 0.6200 | 0.7300 | 2.1700 | 0.4400 | 2.650 |
| July | | | | | | | | | | | | |
| 02 | 0910 | 0.0350 | 21.0 | 6.90 | 154.00 | 213 | 0.0700 | 0.2900 | 0.4800 | 1.8700 | 0.2900 | 2.180 |
| 02 | 1035 | 0.0840 | 21.0 | 6.90 | 135.00 | 228 | 0.0800 | 0.3100 | 0.3500 | 1.2200 | 0.3100 | 1.530 |
| 02 | 1350 | 0.2500 | 20.0 | 7.40 | 113.00 | 235 | 0.1200 | 0.3600 | 0.4100 | 1.1900 | 0.3700 | 1.590 |
| 02 | 1840 | 0.3700 | 21.0 | 7.60 | 95.00 | 174 | 0.1000 | 0.2400 | 0.3300 | 0.8100 | 0.4200 | 1.250 |
| 03 | 0945 | 0.1030 | 20.0 | 7.60 | 103.00 | 103 | <0.0200 | 0.1600 | 0.2600 | 1.1600 | 0.4200 | 1.600 |
| September | | | | | | | | | | | | |
| 29 | 1135 | 0.0031 | 17.0 | 7.90 | 135.00 | 76 | 0.0800 | 0.2100 | 0.4100 | 0.8600 | 0.2000 | 1.080 |
| 29 | 1140 | 0.0031 | 17.0 | 7.90 | 135.00 | -- | 0.0800 | 0.2200 | 1.0800 | 1.0800 | 0.2000 | 1.100 |
| October | | | | | | | | | | | | |
| 20 | 1105 | 0.0005 | 14.0 | 7.90 | 195.00 | 24 | 0.3300 | 0.3400 | 0.6700 | 0.8300 | 0.2000 | 1.050 |
| November | | | | | | | | | | | | |
| 16 | 1100 | 0.0004 | 11.5 | 8.10 | 165.00 | 20 | 0.2000 | 0.2100 | 0.2800 | 0.5100 | 0.1800 | 0.710 |
| 17 | 1839 | 0.1200 | 11.5 | 7.65 | 108.00 | 394 | 0.0200 | 0.0300 | 0.6800 | 0.9100 | 0.3700 | 1.310 |
| 17 | 2001 | 0.1500 | 11.5 | 7.80 | 122.00 | 268 | 0.0700 | 0.0700 | 0.7300 | 1.0800 | 0.3500 | 1.450 |
| 17 | 2157 | 0.1200 | 11.0 | 7.65 | 119.00 | 211 | 0.0800 | 0.0800 | 0.5000 | 0.8200 | 0.3500 | 1.170 |
| 18 | 0615 | 0.0610 | 10.0 | 7.60 | 109.00 | 163 | 0.0700 | 0.0700 | 0.5000 | 0.8900 | 0.3700 | 1.290 |
| 18 | 1755 | 0.0370 | 11.5 | -- | -- | 119 | 0.0500 | 0.0500 | <0.2000 | 0.7000 | 0.3500 | 1.050 |
| Decmeber | | | | | | | | | | | | |
| 21 | 1100 | 0.0800 | 8.0 | 7.60 | 95.00 | 83 | 0.0900 | 0.1800 | 0.3300 | 0.6600 | 0.5100 | 1.190 |

TABLE A3. Site 3, Stormwater Management Pond No. 1 Near Linglestown, Pa. (01570988) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved | Phos-phorus, Dissolved | Phos-phorus, Total | Carbon, Organic, Total | Oil and Grease, Total, Recoverable Electrometric | Copper, Dissolved | Copper, Total, Recover-able | Lead, Dissolved | Lead, Total, Recover-able | Zinc, Dissolved | Zinc, Total, Recover-able |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | mg/l as P (00671) | mg/l as P (00666) | mg/l. as P (00665) | mg/l as C (00680) | mg/l (00560) | µg/l as Cu (01040) | µg/l (01119) | µg/l as Pb (01049) | µg/l (01114) | µg/l as Zn (01090) | µg/l (01094) |
| January 1992 |  |  |  |  |  |  |  |  |  |  |  |  |
| 04 | 1015 | <0.002 | 0.020 | 0.160 | 5.6000 | <0.5000 | 1.2200 | 3.4700 | <0.2000 | 3.3900 | 25.0800 | 88.2700 |
| 04 | 1250 | 0.002 | <0.020 | 0.190 | 5.8000 | <0.5000 | 0.9100 | 5.4200 | <0.2000 | 4.4600 | 15.6700 | 81.7700 |
| 04 | 1605 | <0.002 | 0.020 | 0.190 | 5.6000 | <0.5000 | 1.2100 | -- | 0.2600 | 3.3900 | 11.3900 | 85.5600 |
| 05 | 1035 | <0.002 | 0.020 | 0.190 | 5.6000 | <0.5000 | 0.9600 | 3.3400 | <0.2000 | 3.3100 | 15.6700 | 83.2900 |
| 06 | 1140 | <0.002 | 0.020 | 0.150 | 5.5000 | <0.5000 | 0.8000 | 2.9800 | <0.2000 | 2.6600 | 23.4500 | 85.5000 |
| March |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | 0610 | 0.005 | 0.020 | 0.440 | 9.6000 | <0.5000 | 1.8700 | 6.0200 | <0.2000 | 8.6200 | 8.1700 | 70.6000 |
| 11 | 0730 | <0.002 | 0.020 | 0.410 | 8.6000 | <0.5000 | 1.6500 | 7.1800 | <0.2000 | 8.8300 | 5.5600 | 71.9000 |
| 11 | 1330 | <0.002 | 0.020 | 0.400 | 8.5000 | <0.5000 | 1.3000 | 8.4600 | <0.2000 | 7.7000 | 7.8000 | 68.7000 |
| 12 | 0745 | <0.002 | 0.020 | 0.330 | 7.9000 | <0.5000 | 1.4600 | 4.7100 | 0.3060 | 7.1300 | 9.2300 | 57.6000 |
| 13 | 1210 | <0.002 | <0.020 | 0.250 | 7.2000 | <0.5000 | 1.6900 | 6.6400 | <0.2000 | 5.3800 | 42.6000 | 103.0000 |
| 25 | 1150 | 0.002 | 0.020 | 0.090 | 4.3000 | <0.5000 | 1.4400 | 2.6800 | <0.2000 | 1.8200 | 62.4000 | 137.0000 |
| May |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | 0945 | 0.011 | 0.040 | 0.110 | 8.5000 | <0.5000 | 1.8800 | 1.8800 | 1.2100 | 1.2100 | 22.9000 | 67.8000 |
| 30 | 2010 | <0.002 | 0.030 | 0.130 | 25.1000 | <0.5000 | 1.0800 | 1.5900 | 0.2900 | 1.2000 | 4.6000 | 33.0700 |
| 30 | 2200 | <0.002 | 0.030 | 0.100 | 19.6000 | <0.5000 | 0.9000 | 1.4800 | <0.2000 | 1.2500 | 5.6700 | 48.2800 |
| 30 | 2355 | <0.002 | 0.030 | 0.120 | 14.4000 | <0.5000 | <0.8000 | 1.2800 | 0.2800 | 0.9400 | 10.6400 | 47.6900 |
| 31 | 0735 | <0.002 | 0.020 | 0.090 | 9.8000 | <0.5000 | <0.8000 | 1.1500 | <0.2000 | 0.9000 | 15.9100 | 57.7100 |
| 31 | 1840 | <0.002 | 0.020 | 0.090 | 10.5000 | <0.5000 | <0.8000 | 1.6900 | 0.2800 | 0.4310 | 6.4700 | 46.4600 |
| July |  |  |  |  |  |  |  |  |  |  |  |  |
| 03 | 1700 | 0.004 | 0.022 | 0.250 | 33.4000 | <0.5000 | 1.2100 | 1.9500 | 0.3200 | 2.1500 | 33.4000 | 114.9000 |
| 03 | 1830 | 0.003 | 0.023 | 0.290 | 42.2000 | 1.1000 | 1.6800 | 2.6800 | 0.5700 | 2.0500 | 32.0000 | 95.3000 |
| 03 | 2010 | 0.004 | 0.019 | 0.240 | 37.1000 | 1.4000 | 1.7900 | 2.3900 | 1.5600 | 1.8100 | 41.4000 | 96.0000 |
| 04 | 0910 | 0.018 | 0.020 | 0.230 | 30.4000 | 1.2000 | 1.9100 | 3.0100 | 1.6100 | 1.8100 | 42.3000 | 100.1000 |
| 04 | 2140 | 0.003 | 0.020 | 0.200 | 37.0000 | 3.8000 | 0.8900 | 2.2400 | <0.2000 | 1.6000 | <1.0000 | 55.0000 |

TABLE A3. Site 3, Stormwater Management Pond No. 1 Near Linglestown, Pa. (01570988) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved | Phos-phorus, Dissolved | Phos-phorus, Total | Carbon, Organic, Total | Oil and Grease, Total, Recoverable Electrometric | Copper, Dissolved | Copper, Total, Recover-able | Lead, Dissolved | Lead, Total, Recover-able | Zinc, Dissolved | Zinc, Total, Recover-able |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mg/l as P (00671) | mg/l as P (00666) | mg/l. as P (00665) | mg/l as C (00680) | mg/l (00560) | µg/l as Cu (01040) | µg/l (01119) | µg/l as Pb (01049) | µg/l (01114) | µg/l as Zn (01090) | µg/l (01094) |
| August 1992 | | | | | | | | | | | | |
| 28 | 1915 | <0.002 | 0.019 | 0.480 | 10.7000 | <0.5000 | <0.8000 | 12.5000 | <0.2000 | 8.8400 | 16.3000 | 151.0000 |
| 28 | 2125 | <0.002 | 0.019 | 0.380 | 10.3000 | <0.5000 | 0.8150 | 6.5100 | <0.2000 | 5.6100 | 9.3800 | 93.0000 |
| 28 | 2305 | <0.002 | 0.021 | 0.370 | 10.2000 | <0.5000 | 0.8900 | 8.4700 | <0.2000 | 7.1300 | 8.1600 | 108.0000 |
| 29 | 0910 | <0.002 | 0.020 | 0.270 | 10.4000 | <0.5000 | 2.5200 | 4.4800 | <0.2000 | 3.4600 | 12.1000 | 71.0000 |
| 30 | 1130 | <0.002 | 0.020 | 0.180 | 9.9000 | <0.5000 | <0.8000 | 2.3200 | <0.2000 | 1.8100 | 12.2000 | 49.4000 |
| December | | | | | | | | | | | | |
| 17 | 0525 | 0.072 | 0.123 | 0.510 | 7.3000 | <0.5000 | 1.8600 | 13.2000 | 8.8000 | 8.8000 | 35.7000 | 198.0000 |
| 17 | 0830 | 0.086 | 0.140 | 0.530 | 7.3000 | <0.5000 | 1.8300 | 13.4000 | 6.4000 | 6.4000 | 21.1000 | 199.0000 |
| 17 | 1250 | 0.097 | 0.137 | 0.460 | 7.1000 | 0.5900 | 1.9500 | 10.5000 | 5.1000 | 5.1000 | 27.6000 | 116.0000 |
| 18 | 0530 | 0.067 | 0.132 | 0.380 | 7.2000 | <0.5000 | 2.2400 | 8.6300 | 4.9000 | 4.9000 | 22.2000 | 94.6000 |
| 19 | 1350 | 0.065 | 0.150 | 0.370 | 7.1000 | <0.5000 | 1.2100 | 8.0000 | 3.3000 | 3.3000 | 38.2000 | 103.0000 |
| January 1993 | | | | | | | | | | | | |
| 11 | 0935 | <0.002 | 0.024 | 0.170 | 6.8000 | <0.5000 | <0.8000 | 3.0000 | <0.2000 | 3.2000 | 41.2000 | 82.5000 |
| February | | | | | | | | | | | | |
| 09 | 1040 | <0.002 | 0.016 | 0.050 | 5.4000 | <0.5000 | 1.5100 | 2.2000 | <0.2000 | 0.9100 | 27.5000 | 43.1000 |
| March | | | | | | | | | | | | |
| 04 | 1000 | <0.002 | 0.019 | 0.160 | 5.3000 | 0.5900 | 1.6700 | 4.8700 | <0.2000 | 4.3100 | 24.2000 | 119.0000 |
| 04 | 1505 | <0.002 | 0.022 | 0.150 | 5.2000 | 0.5900 | 1.3200 | 5.0400 | <0.2000 | 4.6400 | 12.0000 | 89.9000 |
| 04 | 1945 | <0.002 | 0.024 | 0.160 | 4.9000 | <0.5000 | 1.2600 | 3.6900 | <0.2000 | 2.9700 | 10.7000 | 57.8000 |
| 05 | 0940 | 0.002 | 0.027 | 0.110 | 4.5000 | <0.5000 | 1.0200 | 2.9300 | <0.2000 | 2.2600 | 19.0000 | 62.0000 |
| 06 | 1140 | <0.002 | 0.020 | 0.080 | 3.7000 | <0.5000 | 0.8510 | 2.0700 | <0.2000 | 1.2600 | 59.2000 | 77.2000 |
| 22 | 1145 | <0.010 | 0.017 | 0.090 | 1.8000 | <0.5000 | 0.9100 | 2.2600 | <0.2000 | 1.4200 | 43.2000 | 84.4000 |
| April | | | | | | | | | | | | |
| 28 | 1100 | <0.002 | 0.018 | 0.260 | 5.8000 | <0.5000 | 0.8800 | 5.5200 | <0.2000 | 5.1900 | 6.9600 | 51.8000 |

TABLE A3. Site 3, Stormwater Management Pond No. 1 Near Linglestown, Pa. (01570988) (Continued)

| Date | Time | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| May 1993 | | | | | | | | | | | | |
| 05 | 1010 | <0.002 | 0.015 | 0.150 | 7.1000 | <0.5000 | 2.2700 | 4.6100 | 0.4600 | 3.2800 | 4.1900 | 54.6000 |
| 05 | 1900 | <0.002 | 0.015 | 0.200 | 8.2000 | 0.7900 | 2.4600 | 6.4400 | 0.4800 | 5.4300 | 3.1400 | 81.4000 |
| 05 | 2030 | <0.002 | 0.014 | 0.260 | 8.5000 | 1.3000 | 2.4300 | 7.9100 | 0.4700 | 6.7300 | 3.4700 | 80.2000 |
| 06 | 0750 | <0.002 | 0.017 | 0.260 | 10.0000 | 0.6000 | 2.4400 | 7.7400 | 0.5100 | 5.6800 | 2.8400 | 72.6000 |
| 07 | 0905 | <0.002 | 0.020 | 0.180 | 7.8000 | 0.8800 | 1.2100 | 3.9000 | <0.2000 | 3.0700 | 1.3600 | 35.9000 |
| June | | | | | | | | | | | | |
| 23 | 1200 | 0.006 | 0.011 | 0.430 | 11.2000 | <0.5000 | 1.3200 | 8.4800 | <0.2000 | 8.7200 | 5.1100 | 67.7000 |
| July | | | | | | | | | | | | |
| 02 | 0910 | <0.002 | 0.028 | 0.260 | 11.5000 | <0.5000 | <0.8000 | 4.2500 | <0.2000 | 4.5400 | 4.6200 | 91.0000 |
| 02 | 1035 | <0.002 | 0.029 | 0.250 | 10.4000 | <0.5000 | <0.8000 | 4.4700 | <0.2000 | 4.7200 | 3.0700 | 70.7000 |
| 02 | 1350 | <0.002 | 0.034 | 0.250 | 8.5000 | <0.5000 | <0.8000 | 5.0500 | <0.2000 | 5.2200 | 4.3300 | 87.5000 |
| 02 | 1840 | <0.002 | 0.035 | 0.220 | 6.6000 | <0.5000 | <0.8000 | 4.0100 | <0.2000 | 4.0200 | 4.7500 | 52.3000 |
| 03 | 0945 | <0.002 | 0.034 | 0.220 | 6.6000 | <0.5000 | <0.8420 | 4.0900 | <0.2000 | 3.2200 | 6.5600 | 55.2000 |
| September | | | | | | | | | | | | |
| 29 | 1135 | <0.002 | 0.027 | 0.150 | 6.8000 | <0.5000 | 2.1200 | 3.3200 | 0.3670 | 2.9700 | 24.6000 | 27.2000 |
| 29 | 1140 | <0.002 | 0.043 | 0.150 | 6.7000 | -- | 2.4600 | 2.6800 | 0.4040 | 2.7800 | 12.2000 | 26.1000 |
| October | | | | | | | | | | | | |
| 20 | 1105 | <0.002 | 0.027 | 0.080 | 5.3000 | <0.5000 | <0.8000 | 1.3600 | <0.2000 | 1.1100 | 38.6000 | 39.5000 |
| November | | | | | | | | | | | | |
| 16 | 1100 | <0.002 | 0.022 | 0.070 | 4.4000 | <0.5000 | <0.8000 | 1.1300 | <0.2000 | 0.6210 | 16.4000 | 24.9000 |
| 17 | 1839 | 0.003 | 0.032 | 0.280 | 6.6000 | <0.5000 | 1.0800 | 6.0400 | 0.4300 | 7.0000 | 4.8000 | 93.0000 |
| 17 | 2001 | <0.002 | 0.038 | 0.340 | 6.8000 | <0.5000 | 0.9800 | 60.2000 | 0.2000 | 57.7000 | 3.4200 | 189.0000 |
| 17 | 2157 | 0.002 | 0.036 | 0.220 | 6.7000 | <0.5000 | 0.9000 | 5.6600 | 0.2800 | 6.1400 | 2.7200 | 62.4000 |
| 18 | 0615 | <0.002 | 0.035 | 0.230 | 6.2000 | <0.5000 | 0.9000 | 4.4000 | <0.2000 | 4.8600 | 3.9600 | 47.7000 |
| 18 | 1755 | <0.002 | 0.027 | 0.210 | 6.6000 | <0.5000 | 0.9700 | 3.8800 | 0.2700 | 4.1800 | 4.2200 | 40.1000 |
| December | | | | | | | | | | | | |
| 21 | 1100 | <0.002 | 0.044 | 0.130 | 5.5000 | <0.5000 | <0.8000 | 3.0500 | <0.2000 | 3.3300 | 14.8000 | 46.5000 |

TABLE A4. Site 4, Stormwater Management Pond No. 2 Near Paxtonia, Pa. (01570992)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temper-ature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conduct-ance µs/cm (00095) | Sus-pended Sedi-ment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| May 1992 | | | | | | | | | | | | |
| 30 | 1845 | 0.0630 | 15.0 | 7.90 | 75.00 | 21 | 0.3000 | 0.3000 | 0.5000 | 0.6200 | 0.3100 | 0.950 |
| 30 | 2105 | 0.0960 | 15.0 | 7.75 | 103.00 | 9 | 0.3300 | 0.3400 | 0.4500 | 0.5800 | 0.3500 | 0.950 |
| 30 | 2240 | 0.0840 | -- | 7.75 | 101.00 | 8 | 0.2500 | 0.2500 | 0.2600 | 0.3600 | 0.2900 | 0.670 |
| 31 | 0800 | 0.0340 | 17.0 | 7.65 | 113.00 | 19 | 0.1800 | 0.1900 | 0.2200 | 0.3000 | 0.2400 | 0.540 |
| 31 | 1915 | 0.0074 | 21.5 | 7.55 | 249.00 | 16 | 0.0300 | 0.0400 | 0.3600 | 0.6900 | 0.2200 | 0.910 |
| July | | | | | | | | | | | | |
| 03 | 1650 | 0.0800 | -- | 7.30 | 85.00 | 19 | 0.2800 | 0.2800 | 0.4600 | 0.5700 | 0.5700 | 1.160 |
| 03 | 1815 | 0.1500 | -- | 7.30 | 72.00 | 9 | 0.2700 | 0.2700 | 0.3300 | 0.5600 | 0.5100 | 1.070 |
| 03 | 1950 | 0.1000 | -- | 7.50 | 94.00 | 16 | 0.3200 | 0.2800 | 0.6300 | 0.7100 | 0.5900 | 1.350 |
| 04 | 0830 | 0.0500 | 19.0 | 7.80 | 130.00 | 22 | 0.1200 | 0.1200 | 0.2700 | 0.5600 | 0.5100 | 1.070 |
| 04 | 2110 | 0.0100 | 23.0 | 7.60 | 47.00 | 22 | 0.0200 | 0.0300 | 0.5300 | 0.7700 | 0.3300 | 1.100 |
| August | | | | | | | | | | | | |
| 28 | 1910 | 0.3400 | 21.0 | 7.30 | 56.00 | 182 | 0.0600 | 0.0600 | <0.2000 | 0.8700 | 0.0700 | 1.110 |
| 28 | 2110 | 0.2700 | 20.5 | 7.20 | 50.00 | 25 | 0.0700 | 0.0700 | <0.2000 | 0.3100 | 0.0700 | 0.400 |
| 28 | 2245 | 0.2700 | 20.5 | 7.20 | 54.00 | 23 | 0.0600 | 0.0600 | <0.2000 | 0.2600 | 0.0900 | 0.590 |
| 29 | 0845 | 0.1000 | 19.5 | 7.00 | 149.00 | 39 | <0.0200 | <0.0200 | 0.2200 | 0.5600 | 0.1800 | 0.760 |
| 30 | 1030 | 0.0084 | 19.0 | 8.20 | 544.00 | 11 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | <0.0400 | 0.120 |
| November | | | | | | | | | | | | |
| 18 | 1055 | 0.0073 | 11.5 | 7.90 | 500.00 | 25 | 0.0800 | 0.1000 | <0.2000 | <0.2000 | 1.0800 | 1.180 |
| December | | | | | | | | | | | | |
| 09 | 1045 | 0.0037 | 7.5 | 7.80 | 696.00 | 32 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.9700 | 1.070 |
| 17 | 0505 | 0.2000 | 6.5 | 7.40 | 358.00 | 29 | 0.1500 | 0.1400 | 0.3700 | 0.5000 | 0.5500 | 1.050 |
| 17 | 0810 | 0.8700 | 5.5 | 7.50 | 113.00 | 19 | 0.1400 | 0.1400 | 0.3100 | 0.4300 | 0.2900 | 0.720 |
| 17 | 1215 | 0.6300 | 5.0 | 7.30 | 131.00 | 40 | 0.1600 | 0.1400 | 0.3900 | 0.5300 | 0.4400 | 0.970 |
| 18 | 0515 | 0.0280 | 7.0 | 7.20 | 445.00 | 6 | 0.0300 | 0.0500 | 0.3600 | 0.4500 | 0.8100 | 1.260 |
| 19 | 1330 | 0.0031 | 8.5 | 7.30 | 580.00 | 1 | 0.0400 | 0.0400 | 0.2500 | 0.2800 | 1.2300 | 1.510 |

TABLE A4. Site 4, Stormwater Management Pond No. 2 Near Paxtonia, Pa. (01570992) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1993 | | | | | | | | | | | | |
| 11 | 0810 | 0.0098 | 7.5 | 7.90 | 530.00 | 11 | <0.0200 | 0.0200 | 0.2300 | 0.3100 | 1.2300 | 1.540 |
| 11 | 0815 | 0.0098 | 7.5 | 7.90 | 530.00 | 9 | <0.0200 | <0.0200 | 0.2500 | 0.2600 | 1.2300 | 1.490 |
| February | | | | | | | | | | | | |
| 09 | 1100 | 0.0028 | 4.5 | 8.50 | 935.00 | 8 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.8100 | 0.910 |
| March | | | | | | | | | | | | |
| 04 | 0935 | 0.7000 | 2.5 | 6.70 | 490.00 | 235 | 0.0700 | 0.0900 | 0.3300 | 0.8500 | 0.8100 | 1.660 |
| 04 | 1445 | 0.9500 | 2.0 | 7.35 | 288.00 | 30 | 0.0700 | 0.0700 | 0.2300 | 0.3900 | 0.4800 | 0.870 |
| 04 | 1915 | 0.7800 | 2.5 | 7.30 | 272.00 | 31 | 0.0600 | 0.0700 | 0.2500 | 0.3600 | 0.5100 | 0.890 |
| 05 | 0910 | 0.5100 | 2.0 | 7.25 | 450.00 | 3 | 0.0700 | 0.1000 | 0.2500 | 0.3200 | 0.9900 | 1.310 |
| 06 | 1100 | 0.0950 | 4.5 | 7.10 | 870.00 | 3 | 0.0400 | 0.0500 | 0.5100 | 0.5200 | 1.5400 | 2.060 |
| 06 | 1105 | 0.0950 | 4.5 | 7.15 | 870.00 | 9 | 0.0300 | 0.0500 | 0.4800 | 0.5000 | 1.5600 | 2.060 |
| 22 | 1030 | 0.0330 | 5.0 | 7.45 | 550.00 | 14 | 0.0200 | 0.0400 | 0.2600 | 0.3300 | 1.2700 | 1.600 |
| 22 | 1035 | 0.0330 | 5.0 | 7.50 | 550.00 | 12 | 0.0200 | 0.0400 | 0.3000 | 0.3900 | 1.2700 | 1.660 |
| April | | | | | | | | | | | | |
| 28 | 0940 | 0.0330 | 10.5 | 6.62 | 592.00 | 4 | <0.0200 | 0.0300 | <0.2000 | <0.2000 | 1.4300 | 1.530 |
| May | | | | | | | | | | | | |
| 05 | 0950 | 0.3500 | 15.0 | 7.80 | 120.00 | 37 | 0.4200 | 0.4500 | 0.8700 | 0.9100 | 0.6400 | 1.550 |
| 05 | 1825 | 0.4000 | 17.5 | 7.70 | 265.00 | 74 | 0.0900 | 0.2100 | 0.4300 | 0.9900 | 0.6800 | 1.690 |
| 05 | 2000 | 0.4400 | 17.5 | 7.70 | 108.00 | 187 | 0.2600 | 0.4700 | 0.4200 | 1.3200 | 0.7000 | 2.070 |
| 06 | 0720 | 0.0280 | 13.5 | 8.00 | 550.00 | 39 | 0.0400 | 0.0900 | 0.2800 | 0.5000 | 0.8800 | 1.380 |
| 07 | 0830 | 0.0160 | 13.0 | 8.00 | 680.00 | 6 | 0.0400 | 0.0400 | 0.2100 | 0.2100 | 1.1200 | 1.330 |
| 18 | 1015 | 0.0084 | 14.0 | 8.20 | 615.00 | 7 | 0.0200 | 0.0200 | <0.2000 | <0.2000 | 1.0100 | 1.110 |
| 18 | 1020 | 0.0084 | 14.0 | 8.20 | 615.00 | -- | 0.0300 | 0.0700 | <0.2000 | <0.2000 | 1.0300 | 1.130 |
| June | | | | | | | | | | | | |
| 23 | 1100 | 0.0064 | 17.0 | 7.95 | 670.00 | 37 | 0.0200 | 0.0200 | 0.2800 | 0.2800 | 1.1700 | 1.450 |

TABLE A4. Site 4, Stormwater Management Pond No. 2 Near Paxtonia, Pa. (01570992) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1993 | | | | | | | | | | | | |
| 02 | 0845 | 0.6190 | 19.5 | 7.70 | 74.00 | 15 | 0.1100 | 0.1200 | 0.3300 | 0.6400 | 0.3500 | 1.010 |
| 02 | 1010 | 0.6680 | 19.0 | 7.20 | 70.00 | 17 | 0.1500 | 0.1500 | 0.2000 | 0.3700 | 0.6200 | 0.990 |
| 02 | 1325 | 0.6600 | 20.0 | 7.40 | 96.00 | 14 | 0.2100 | 0.2100 | 0.3300 | 0.4100 | 0.6600 | 1.070 |
| 02 | 1810 | 0.8830 | 21.0 | 7.50 | 100.00 | 24 | 0.1200 | 0.1300 | 0.2000 | 0.3200 | 0.4600 | 0.780 |
| 03 | 0920 | 0.1160 | 20.0 | 7.20 | 270.00 | 14 | <0.0200 | 0.0300 | 0.2600 | 0.4600 | 0.4800 | 0.940 |
| 15 | 1010 | 0.0110 | 21.0 | 8.25 | 640.00 | 43 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.9200 | 1.020 |
| 15 | 1015 | 0.0110 | 21.0 | 8.20 | 640.00 | 15 | <0.0200 | <0.0200 | <0.2000 | 0.2100 | 0.9700 | 1.180 |
| August | | | | | | | | | | | | |
| 19 | 1350 | 0.0030 | 21.5 | 8.20 | 665.00 | 14 | 0.0200 | 0.0300 | <0.2000 | <0.2000 | 0.9500 | 1.050 |
| September | | | | | | | | | | | | |
| 29 | 1020 | 0.0170 | 16.5 | 7.40 | 630.00 | 2 | <0.0200 | 0.0200 | 0.2500 | 0.2600 | 1.1400 | 1.400 |
| 29 | 1025 | 0.0170 | 16.5 | 7.40 | 630.00 | -- | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 1.1700 | 1.270 |
| October | | | | | | | | | | | | |
| 20 | 1015 | 0.0120 | 15.0 | 7.80 | 345.00 | 1 | 0.1000 | 0.1100 | 0.4100 | 0.4800 | 1.7600 | 2.240 |
| November | | | | | | | | | | | | |
| 16 | 1015 | 0.0040 | 12.0 | 8.30 | 680.00 | 1 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.7000 | 0.800 |
| 17 | 1813 | 0.6700 | 13.0 | 7.65 | 141.00 | 136 | 0.3000 | 0.2900 | 0.4600 | 0.9700 | 0.5500 | 1.520 |
| 17 | 1939 | 0.5400 | 12.0 | 7.45 | 160.00 | 27 | 0.3200 | 0.4100 | 0.4500 | 0.5000 | 0.6200 | 1.120 |
| 17 | 2132 | 0.4000 | 12.5 | 7.40 | 228.00 | 54. | 0.1800 | 0.1800 | 0.3600 | 0.6400 | 0.6400 | 1.280 |
| 18 | 0547 | 0.0190 | 12.0 | 7.55 | 295.00 | 11 | 0.0200 | 0.0400 | 0.2700 | 0.3800 | 0.7000 | 1.110 |
| 18 | 1715 | 0.0100 | 12.0 | -- | -- | 8 | <0.0200 | <0.0200 | <0.2000 | 0.2000 | 0.7300 | 0.930 |
| December | | | | | | | | | | | | |
| 21 | 0900 | 0.4000 | 4.5 | 7.70 | 105.00 | 17 | 0.0400 | 0.0500 | <0.2000 | 0.3300 | 0.3500 | 0.700 |

TABLE A4. Site 4, Stormwater Management Pond No. 2 Near Paxtonia, Pa. (01570992) (Continued)

| Date | Time | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| May 1992 | | | | | | | | | | | | |
| 30 | 1845 | 0.002 | 0.020 | 0.020 | 4.1000 | <0.5000 | 1.0600 | 1.9900 | <0.2000 | 2.1200 | 97.0200 | 151.5400 |
| 30 | 2105 | 0.003 | 0.020 | 0.030 | 4.8000 | <0.5000 | 1.2400 | 2.2000 | <0.2000 | 1.2200 | 136.4800 | 174.6100 |
| 30 | 2240 | <0.002 | 0.020 | 0.020 | 3.0000 | <0.5000 | <0.8000 | 1.0500 | <0.2000 | 0.7700 | 101.7400 | 116.5100 |
| 31 | 0800 | 0.002 | 0.020 | 0.030 | 3.2000 | <0.5000 | <0.8000 | 0.8600 | <0.2000 | 0.7000 | 78.9000 | 95.0000 |
| 31 | 1915 | <0.002 | 0.020 | 0.040 | 8.0000 | <0.5000 | 1.2400 | 1.6800 | <0.2000 | 0.8500 | 46.1200 | 105.2200 |
| July | | | | | | | | | | | | |
| 03 | 1650 | 0.006 | 0.025 | 0.050 | 6.2000 | <0.5000 | 1.8300 | 3.3200 | 0.4700 | 2.5000 | 174.9000 | 202.5000 |
| 03 | 1815 | 0.007 | <0.020 | 0.040 | 5.6000 | <0.5000 | 1.4100 | 2.9800 | <0.2000 | 1.7900 | 151.1000 | 239.8000 |
| 03 | 1950 | 0.012 | 0.030 | 0.050 | 7.4000 | <0.5000 | 1.9500 | 3.5300 | 0.4800 | 1.6200 | 150.3000 | 240.2000 |
| 04 | 0830 | 0.010 | 0.037 | 0.070 | 6.4000 | <0.5000 | 1.3200 | 3.6700 | 0.3900 | 1.4300 | 143.6000 | 147.4000 |
| 04 | 2110 | 0.007 | 0.025 | 0.060 | 11.0000 | <0.5000 | 1.7200 | 2.9300 | <0.2000 | 1.6700 | 116.6000 | 290.0000 |
| August | | | | | | | | | | | | |
| 28 | 1910 | 0.005 | 0.040 | 0.230 | 3.4000 | <0.5000 | 1.0500 | 7.6800 | <0.2000 | 16.4000 | 191.0000 | 1030.0000 |
| 28 | 2110 | 0.005 | 0.031 | 0.070 | 2.7000 | <0.5000 | 1.1000 | 2.3200 | 0.2970 | 1.8200 | 168.0000 | 277.0000 |
| 28 | 2245 | 0.012 | 0.040 | 0.080 | 3.3000 | 2.2000 | <0.8000 | 2.1700 | <0.2000 | 1.6100 | 180.0000 | 270.0000 |
| 29 | 0845 | 0.057 | 0.099 | 0.190 | 6.7000 | <0.5000 | 2.6100 | 3.1800 | 0.2230 | 1.9700 | 261.0000 | 409.0000 |
| 30 | 1030 | 0.003 | 0.022 | 0.030 | 3.4000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 126.0000 | 171.0000 |
| November | | | | | | | | | | | | |
| 18 | 1055 | <0.002 | <0.020 | 0.020 | 2.0000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 118.0000 | 144.0000 |
| December | | | | | | | | | | | | |
| 09 | 1045 | 0.004 | 0.020 | 0.030 | 1.9000 | <0.5000 | 4.4100 | 4.4100 | <0.2000 | <0.2000 | 122.0000 | 122.0000 |
| 17 | 0505 | <0.002 | <0.020 | 0.053 | 2.4000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 633.0000 | 684.0000 |
| 17 | 0810 | 0.002 | 0.022 | 0.053 | 2.3000 | 0.5900 | <0.8000 | <0.8000 | 0.6000 | <0.6000 | 180.0000 | 240.0000 |
| 17 | 1215 | <0.002 | 0.022 | 0.079 | 2.7000 | 0.5700 | <0.8000 | 1.8400 | 2.2000 | 2.2000 | 178.0000 | 220.0000 |
| 18 | 0515 | <0.002 | <0.020 | 0.053 | 3.2000 | <0.5000 | 0.9780 | 3.0900 | <0.2000 | <0.2000 | 349.0000 | 401.0000 |
| 19 | 1330 | <0.002 | <0.020 | 0.026 | 2.2000 | <0.5000 | 0.8340 | 2.1600 | <0.2000 | <0.2000 | 352.0000 | 380.0000 |

TABLE A4. Site 4, Stormwater Management Pond No. 2 Near Paxtonia, Pa. (01570992) (Continued)

| Date | Time | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1993 | | | | | | | | | | | | |
| 11 | 0810 | <0.002 | <0.020 | 0.020 | 2.2000 | <0.5000 | 1.1100 | 1.2000 | <0.2000 | <0.2000 | 177.0000 | 200.0000 |
| 11 | 0815 | <0.002 | <0.020 | 0.020 | 2.2000 | <0.5000 | 1.2500 | 1.5100 | <0.2000 | 0.2100 | 173.0000 | 202.0000 |
| February | | | | | | | | | | | | |
| 09 | 1100 | <0.002 | <0.020 | 0.020 | 1.9000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 115.0000 | 130.0000 |
| March | | | | | | | | | | | | |
| 04 | 0935 | <0.002 | <0.020 | 0.130 | 4.0000 | 1.2000 | 1.5900 | 4.8200 | <0.2000 | 8.0200 | 265.0000 | 499.0000 |
| 04 | 1445 | <0.002 | <0.020 | 0.070 | 2.9000 | 1.7000 | 1.5400 | 2.6500 | <0.2000 | 4.3700 | 177.0000 | 249.0000 |
| 04 | 1915 | <0.002 | <0.020 | 0.060 | 2.7000 | 1.7000 | 1.7500 | 2.3800 | <0.2000 | 3.1300 | 152.0000 | 191.0000 |
| 05 | 0910 | <0.002 | <0.020 | 0.040 | 2.8000 | <0.5000 | 0.9330 | 1.6700 | <0.2000 | 1.1800 | 204.0000 | 222.0000 |
| 06 | 1100 | <0.002 | 0.020 | 0.040 | 2.7000 | <0.5000 | 1.2200 | 1.2400 | <0.2000 | 0.3150 | 509.0000 | 529.0000 |
| 06 | 1105 | <0.002 | <0.020 | 0.030 | 2.7000 | 0.6000 | 1.2900 | 1.3500 | <0.2000 | 0.8830 | 513.0000 | 541.0000 |
| 22 | 1030 | 0.010 | <0.020 | 0.030 | 1.3000 | <0.5000 | <0.8000 | 0.8300 | <0.2000 | 0.4700 | 384.0000 | 480.0000 |
| 22 | 1035 | <0.010 | <0.020 | 0.030 | <1.0000 | <0.5000 | <0.8000 | 1.1000 | <0.2000 | 0.5300 | 400.0000 | 498.0000 |
| April | | | | | | | | | | | | |
| 28 | 0940 | <0.002 | <0.020 | 0.020 | 1.9000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 318.0000 | 349.0000 |
| May | | | | | | | | | | | | |
| 05 | 0950 | <0.002 | 0.041 | 0.100 | 8.7000 | 0.9000 | 1.8800 | 3.3700 | <0.2000 | 2.1800 | 232.0000 | 304.0000 |
| 05 | 1825 | <0.002 | 0.036 | 0.170 | 9.5000 | 0.6000 | 1.8000 | 4.0900 | <0.2000 | 4.2600 | 195.0000 | 318.0000 |
| 05 | 2000 | 0.012 | 0.043 | 0.330 | 5.7000 | 0.5800 | 1.0700 | 7.2400 | <0.2000 | 10.3000 | 98.9000 | 329.0000 |
| 06 | 0720 | <0.002 | <0.020 | 0.070 | 5.1000 | <0.5000 | 1.6900 | 1.3900 | <0.2000 | 1.2600 | 157.0000 | 265.0000 |
| 07 | 0830 | <0.002 | <0.020 | 0.020 | 2.2000 | 0.7400 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 208.0000 | 246.0000 |
| 18 | 1015 | <0.002 | <0.020 | <0.020 | 1.9000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 128.0000 | 146.4000 |
| 18 | 1020 | <0.002 | <0.020 | <0.020 | 1.8000 | 1.3000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 117.0000 | 157.5000 |
| June | | | | | | | | | | | | |
| 23 | 1100 | 0.008 | <0.020 | 0.030 | 2.4000 | <0.5000 | 0.9100 | 0.9100 | <0.2000 | <0.2000 | 104.0000 | 149.0000 |

TABLE A4. Site 4, Stormwater Management Pond No. 2 Near Paxtonia, Pa. (01570992) (Continued)

| Date | Time | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1993 | | | | | | | | | | | | |
| 02 | 0845 | <0.002 | 0.024 | 0.040 | 1.6000 | <0.5000 | <0.8000 | 0.9800 | 0.0300 | 4.2200 | 33.9000 | 136.0000 |
| 02 | 1010 | <0.002 | <0.020 | 0.040 | 2.6000 | 0.7500 | <0.8000 | 1.3000 | 0.1450 | 1.4900 | 203.0000 | 298.0000 |
| 02 | 1325 | <0.002 | 0.020 | 0.030 | 3.2000 | <0.5000 | 0.8530 | 1.7000 | 0.1590 | 2.5300 | 163.0000 | 215.0000 |
| 02 | 1810 | <0.002 | 0.027 | 0.040 | 3.0000 | <0.5000 | 0.9670 | 1.4700 | 0.1350 | 1.5200 | 138.0000 | 173.0000 |
| 03 | 0920 | <0.002 | 0.052 | 0.070 | 6.5000 | <0.5000 | 1.4900 | 1.7500 | 0.0960 | 0.8100 | 199.0000 | 291.0000 |
| 15 | 1010 | 0.003 | <0.020 | 0.040 | 1.9000 | <0.5000 | <0.8000 | <0.8000 | 0.0370 | 0.0190 | 36.5000 | 55.5000 |
| 15 | 1015 | 0.004 | <0.020 | 0.040 | 1.9000 | <0.5000 | <0.8000 | <0.8000 | 0.0680 | 0.0320 | 34.9000 | 66.5000 |
| August | | | | | | | | | | | | |
| 19 | 1350 | 0.010 | <0.020 | <0.020 | 2.3000 | <0.5000 | 0.8900 | 3.2900 | 0.3900 | 0.1500 | 98.8000 | 114.0000 |
| September | | | | | | | | | | | | |
| 29 | 1020 | 0.003 | <0.020 | 0.020 | 2.6000 | <0.5000 | 2.4000 | 0.8590 | 0.3240 | 0.1090 | 141.0000 | 184.0000 |
| 29 | 1025 | 0.003 | 0.020 | 0.020 | 2.6000 | -- | <0.8000 | <0.8000 | 0.0340 | 0.1140 | 119.0000 | 177.0000 |
| October | | | | | | | | | | | | |
| 20 | 1015 | <0.002 | 0.023 | 0.030 | 5.4000 | <0.5000 | 1.0700 | 1.5400 | 0.1200 | 1.1000 | 35.1000 | 70.0000 |
| November | | | | | | | | | | | | |
| 16 | 1015 | <0.002 | <0.020 | 0.030 | 2.7000 | <0.5000 | <0.8000 | <0.8000 | 0.1020 | 0.0210 | 43.1000 | 52.6000 |
| 17 | 1813 | <0.002 | 0.025 | 0.030 | 3.1000 | <0.5000 | <0.8000 | 4.6900 | 0.2100 | 7.2600 | 106.0000 | 533.0000 |
| 17 | 1939 | <0.002 | 0.021 | 0.050 | 2.5000 | <0.5000 | 1.1600 | 2.0800 | 0.4900 | 2.5100 | 146.0000 | 220.0000 |
| 17 | 2132 | <0.002 | 0.034 | 0.130 | 3.5000 | <0.5000 | 1.0900 | 3.0200 | 0.1500 | 3.7300 | 96.7000 | 180.0000 |
| 18 | 0547 | 0.005 | 0.026 | 0.060 | 3.9000 | <0.5000 | 0.9700 | 1.9100 | 0.1400 | 0.9700 | 96.5000 | 164.0000 |
| 18 | 1715 | 0.003 | 0.029 | 0.030 | 2.8000 | <0.5000 | <0.8000 | 0.8800 | 0.4500 | 0.4400 | 83.7000 | 109.0000 |
| December | | | | | | | | | | | | |
| 21 | 0900 | <0.002 | 0.024 | 0.030 | 2.7000 | <0.5000 | <0.8000 | 4.6400 | 0.0760 | 1.3100 | 111.0000 | 132.0000 |

## TABLE A5. Site 5, Paxton Creek Tributary Near Paxtonia, Pa. (01570996)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1992 | | | | | | | | | | | | |
| 04 | 1045 | 11.0000 | 6.0 | 8.40 | 170.00 | 133 | 0.0400 | 0.0400 | <0.2000 | 0.5400 | 0.5700 | 1.110 |
| 04 | 1325 | 4.6000 | 6.0 | 8.50 | 241.00 | 43 | 0.0300 | 0.0400 | <0.2000 | 0.3400 | 0.7500 | 1.090 |
| 04 | 1630 | 2.7000 | 6.0 | 8.30 | 285.00 | 16 | <0.0200 | 0.0300 | <0.2000 | <0.2000 | 0.8400 | 0.940 |
| 05 | 1110 | 1.0000 | 7.0 | 8.20 | 326.00 | 24 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 1.2300 | 1.330 |
| 06 | 1210 | 0.5000 | 9.0 | 8.10 | 375.00 | 7 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 1.3200 | 1.420 |
| 16 | 1030 | 0.3200 | 1.0 | 8.20 | 409.00 | 1 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 1.3900 | 1.490 |
| February | | | | | | | | | | | | |
| 10 | 1115 | 0.1100 | 0.0 | 7.90 | 628.00 | 1 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.7500 | 0.850 |
| March | | | | | | | | | | | | |
| 11 | 0632 | 33.0000 | 8.0 | 7.20 | 283.00 | 381 | 0.0600 | 0.0500 | <0.2000 | 1.5100 | 0.9500 | 2.460 |
| 11 | 0800 | 19.5000 | 7.5 | 7.20 | 281.00 | 159 | 0.0600 | 0.0800 | 0.2200 | 0.7800 | 1.2100 | 2.010 |
| 11 | 1400 | 8.2000 | 6.5 | 7.20 | 312.00 | 37 | 0.0500 | 0.0500 | 0.2000 | 0.3600 | 1.8300 | 2.190 |
| 12 | 0815 | 2.7000 | 6.0 | 7.20 | 372.00 | 10 | 0.0200 | 0.0300 | <0.2000 | <0.2000 | 2.6400 | 2.740 |
| 13 | 1230 | 1.6000 | 9.0 | 7.30 | 402.00 | 2 | 0.0200 | 0.0200 | 0.3000 | 0.3000 | 2.6400 | 2.940 |
| 25 | 1255 | 0.9800 | 9.5 | 7.20 | 521.00 | 2 | 0.0300 | 0.0400 | <0.2000 | <0.2000 | 1.4700 | 1.570 |
| April | | | | | | | | | | | | |
| 20 | 1150 | 0.1200 | 9.5 | 8.20 | 498.00 | 2 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.7500 | 0.850 |
| May | | | | | | | | | | | | |
| 12 | 1010 | 0.1600 | 16.5 | 8.00 | 440.00 | 1 | <0.0200 | 0.0500 | <0.2000 | <0.2000 | 0.5300 | 0.630 |
| 30 | 1910 | 6.1000 | 14.5 | 7.35 | 233.00 | 91 | 0.1700 | 0.1900 | 0.6000 | 1.5500 | 0.8600 | 2.430 |
| 30 | 2020 | 8.1000 | -- | 7.55 | 145.00 | 167 | 0.1500 | 0.1100 | 0.3900 | 1.1200 | 0.5900 | 1.710 |
| 30 | 2220 | 19.0000 | -- | 7.55 | 149.00 | 354 | 0.1900 | 0.1900 | 0.3700 | 1.8900 | 0.4200 | 2.350 |
| 31 | 0830 | 6.0000 | 17.0 | 7.35 | 261.00 | 20 | 0.1300 | 0.1500 | 0.3600 | 0.7700 | 0.5100 | 1.280 |
| 31 | 1855 | 1.2000 | 18.5 | 7.35 | 357.00 | 11 | 0.0200 | 0.0200 | 0.4200 | 0.8200 | 0.7700 | 1.610 |
| June | | | | | | | | | | | | |
| 18 | 1005 | 0.0560 | 16.5 | -- | -- | 15 | 0.0300 | 0.0300 | <0.2000 | <0.2000 | 0.3500 | 0.450 |

TABLE A5. Site 5, Paxton Creek Tributary Near Paxtonia, Pa. (01570996) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1992 | | | | | | | | | | | | |
| 03 | 1635 | 6.1000 | -- | 7.80 | 202.00 | 101 | 0.0800 | 0.1000 | 0.7900 | 1.5200 | 1.5000 | 3.020 |
| 03 | 1800 | 12.0000 | -- | 7.40 | 124.00 | 176 | 0.1000 | 0.1100 | <0.2000 | 0.7400 | 0.6600 | 1.470 |
| 03 | 2000 | 3.7000 | -- | 7.50 | 194.00 | 27 | 0.0900 | 0.1000 | 0.4200 | 0.6800 | 0.5500 | 1.270 |
| 04 | 0850 | 2.4000 | 20.0 | 7.60 | 253.00 | 9 | 0.2900 | 0.2900 | 0.4600 | 0.5900 | 0.5100 | 1.140 |
| 04 | 2130 | 0.2900 | 21.5 | 7.70 | 352.00 | 5 | 0.0500 | 0.0500 | 0.2200 | 0.2900 | 0.5900 | 0.930 |
| 15 | 1040 | 0.1800 | 23.0 | 7.60 | 325.00 | 1 | <0.0200 | 0.0200 | 0.2700 | 0.4700 | 0.4400 | 0.910 |
| August | | | | | | | | | | | | |
| 19 | 1100 | 0.2000 | 19.5 | 7.70 | -- | -- | <0.0200 | 0.0200 | 0.2600 | 0.4200 | 0.4600 | 0.900 |
| 28 | 1900 | 40.0000 | 20.5 | 7.70 | 140.00 | 1,272 | 0.1100 | 0.1300 | 0.3800 | 2.0500 | 0.3300 | 2.560 |
| 28 | 2115 | 7.5000 | 20.5 | 7.80 | 170.00 | 68 | 0.0800 | 0.0800 | 0.4700 | 0.9800 | 0.2200 | 1.400 |
| 28 | 2255 | 4.6000 | 20.0 | 7.80 | 196.00 | 33 | 0.0700 | 0.0800 | 0.4000 | 0.9800 | 0.2400 | 1.380 |
| 29 | 0855 | 0.4400 | 19.5 | 7.80 | 292.00 | 12 | <0.0200 | 0.0200 | 0.3000 | 0.4800 | 0.1500 | 0.630 |
| 30 | 1045 | 0.1400 | 16.0 | 7.70 | 385.00 | 2 | 0.0200 | 0.0200 | <0.2000 | 0.2200 | 0.1500 | 0.370 |
| September | | | | | | | | | | | | |
| 21 | 0800 | 0.0540 | 16.5 | 7.85 | 480.00 | 2 | 0.0300 | 0.0400 | 0.3600 | 0.4400 | 0.4600 | 0.920 |
| 21 | 0805 | 0.0540 | 16.5 | 7.85 | 480.00 | 11 | 0.0200 | 0.0200 | 0.3300 | 0.3700 | 0.4600 | 0.830 |
| October | | | | | | | | | | | | |
| 15 | 1200 | 0.2300 | 13.5 | 7.80 | 468.00 | 5 | 0.0500 | 0.0500 | 0.2400 | 0.2400 | 1.1900 | 1.430 |
| November | | | | | | | | | | | | |
| 18 | 1130 | 0.2600 | 8.5 | 7.60 | 360.00 | 3 | 0.0500 | 0.0600 | 0.3000 | 0.2200 | 1.1400 | 1.360 |
| December | | | | | | | | | | | | |
| 09 | 1105 | 0.1320 | 7.5 | 8.00 | 486.00 | 13 | <0.0200 | <0.0200 | 0.3100 | 0.3400 | 1.0600 | 1.400 |
| 17 | 0515 | 3.5000 | 4.5 | 7.30 | 395.00 | 24 | 0.0200 | 0.0400 | 0.3800 | 0.5800 | 1.2100 | 1.790 |
| 17 | 0820 | 15.0000 | 4.5 | 7.25 | 215.00 | 136 | 0.0600 | 0.0500 | 0.4300 | 0.9600 | 0.4600 | 1.440 |
| 17 | 1225 | 9.9500 | 5.0 | 7.25 | 248.00 | 22 | 0.0600 | 0.0800 | 0.4100 | 0.6700 | 0.5900 | 1.290 |
| 18 | 0520 | 2.2000 | 5.5 | 7.35 | 385.00 | 15 | 0.0300 | 0.0300 | 0.4100 | 0.5300 | 1.3000 | 1.830 |
| 19 | 1340 | 1.8500 | 7.5 | 7.60 | 410.00 | 2 | <0.0200 | 0.0200 | 0.3000 | 0.3800 | 1.4500 | 1.830 |

TABLE A5.  Site 5, Paxton Creek Tributary Near Paxtonia, Pa. (01570996) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1993 | | | | | | | | | | | | |
| 11 | 0840 | 0.3600 | 3.0 | 7.80 | 500.00 | 2 | <0.0200 | <0.0200 | 0.4400 | 0.4500 | 1.2800 | 1.730 |
| February | | | | | | | | | | | | |
| 09 | 1115 | 0.1800 | 0.5 | 8.30 | 552.00 | 5 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 1.0300 | 1.130 |
| March | | | | | | | | | | | | |
| 04 | 0947 | 13.0000 | 2.0 | 7.50 | 705.00 | 650 | 0.0600 | 0.0600 | 0.6200 | 2.7400 | 0.9900 | 3.730 |
| 04 | 1455 | 21.0000 | 2.5 | 7.65 | 555.00 | 367 | 0.0600 | 0.0600 | 0.5000 | 1.4300 | 0.8400 | 2.290 |
| 04 | 1930 | 19.5000 | 2.5 | 7.70 | 486.00 | 154 | 0.0700 | 0.0700 | 0.4800 | 1.0300 | 1.1000 | 2.130 |
| 05 | 0925 | 8.1000 | 5.0 | 7.70 | 560.00 | 19 | 0.1000 | 0.1000 | 0.7400 | 0.8700 | 1.7400 | 2.610 |
| 06 | 1130 | 4.6000 | 5.5 | 7.60 | 690.00 | 8 | 0.0200 | 0.0500 | 0.4100 | 0.4300 | 1.9100 | 2.340 |
| 22 | 1055 | 1.8700 | 5.5 | 7.85 | 530.00 | 2 | <0.0200 | <0.0200 | 0.3400 | 0.3400 | 1.3000 | 1.640 |
| April | | | | | | | | | | | | |
| 28 | 1030 | 1.6100 | 10.5 | 6.80 | 350.00 | 1 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 1.2700 | 1.370 |
| May | | | | | | | | | | | | |
| 05 | 1005 | 5.3000 | 16.0 | 8.20 | 215.00 | 43 | 0.1500 | 0.1700 | 0.4200 | 0.7900 | 0.6600 | 1.470 |
| 05 | 1845 | 7.2000 | 18.0 | 7.60 | 215.00 | 155 | 0.0500 | 0.1300 | 0.2700 | 1.5300 | 0.6800 | 2.210 |
| 05 | 2010 | 4.5000 | 17.0 | 7.70 | 135.00 | 201 | 0.0700 | 0.1600 | 0.3300 | 1.0000 | 0.7000 | 1.700 |
| 06 | 0735 | 0.7300 | 14.0 | 7.90 | 370.00 | 3 | <0.0200 | 0.0300 | <0.2000 | <0.2000 | 0.7300 | 0.830 |
| 07 | 0845 | 0.2500 | 13.5 | 7.70 | 420.00 | 2 | <0.0200 | 0.0200 | <0.2000 | <0.2000 | 0.7200 | 0.820 |
| 18 | 1040 | 0.1200 | 13.0 | 8.00 | 380.00 | 1 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.5100 | 0.610 |
| 18 | 1045 | 0.1200 | 13.0 | 8.00 | 380.00 | -- | 0.0200 | 0.0500 | <0.2000 | <0.2000 | 0.5100 | 0.610 |
| June | | | | | | | | | | | | |
| 23 | 1110 | 0.3500 | 17.5 | 7.35 | 409.00 | 1 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 1.1000 | 1.200 |

TABLE A5. Site 5, Paxton Creek Tributary Near Paxtonia, Pa. (01570996) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2+NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1993 | | | | | | | | | | | | |
| 02 | 0855 | 4.5000 | 19.0 | 6.90 | 218.00 | 256 | 0.1200 | 0.1300 | 0.3700 | 1.6900 | 1.1900 | 2.990 |
| 02 | 1020 | 11.0000 | 19.0 | 7.00 | 128.00 | 178 | 0.1000 | 0.1300 | 0.2200 | 0.9700 | 0.7700 | 1.760 |
| 02 | 1340 | 12.0000 | 19.0 | 7.40 | 154.00 | 81 | 0.1400 | 0.1500 | 0.2700 | 0.9600 | 0.5500 | 1.550 |
| 02 | 1820 | 20.0000 | 20.0 | 7.10 | 157.00 | 72 | 0.0200 | 0.1100 | 0.3100 | 0.8200 | 0.4800 | 1.300 |
| 03 | 0930 | 2.8000 | 18.0 | 7.00 | 310.00 | 9 | <0.0200 | 0.0400 | 0.2000 | 0.3800 | 1.0100 | 1.390 |
| 15 | 1035 | 0.0480 | 22.0 | 8.10 | 460.00 | 11 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.4600 | 0.560 |
| 15 | 1040 | 0.0480 | 22.0 | 8.10 | 460.00 | -- | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.4800 | 0.580 |
| August | | | | | | | | | | | | |
| 19 | 1425 | 0.0800 | 22.0 | 8.10 | 470.00 | 2 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.2000 | 0.300 |
| September | | | | | | | | | | | | |
| 29 | 1050 | 0.5300 | 14.5 | 7.60 | 420.00 | 1 | <0.0200 | 0.0200 | 0.2100 | 0.2100 | 1.1700 | 1.380 |
| 29 | 1055 | 0.5300 | 14.5 | 7.60 | 420.00 | -- | <0.0200 | 0.0200 | 0.2000 | 0.2000 | 1.1900 | 1.390 |
| October | | | | | | | | | | | | |
| 20 | 1035 | 0.1100 | 13.0 | 7.50 | 430.00 | 11 | <0.0200 | 0.0200 | 0.2100 | 0.2500 | 0.2900 | 0.540 |
| November | | | | | | | | | | | | |
| 16 | 1035 | 0.1910 | 11.0 | 8.10 | 430.00 | 1 | <0.0200 | <0.0200 | <0.2000 | 0.2000 | 0.2800 | 0.480 |
| 17 | 1826 | 18.5000 | -- | 7.65 | 141.00 | 999 | 0.2400 | 0.0700 | 0.5100 | 4.4100 | 0.7300 | 5.140 |
| 17 | 1949 | 10.0000 | 11.5 | 7.45 | 160.00 | 101 | 0.1300 | 0.0600 | 0.3900 | 0.8100 | 0.5900 | 1.400 |
| 17 | 2143 | 6.0000 | 11.5 | 7.40 | 228.00 | 32 | 0.0800 | 0.0200 | 0.3200 | 0.5200 | 0.6600 | 1.180 |
| 18 | 0602 | 2.7000 | 11.0 | 7.55 | 295.00 | 2 | <0.0200 | <0.0200 | <0.2000 | 0.2300 | 0.7700 | 1.000 |
| 18 | 1735 | 1.2000 | 11.0 | -- | -- | 9 | <0.0200 | <0.0200 | 0.2200 | 0.2400 | 0.7900 | 1.030 |
| December | | | | | | | | | | | | |
| 21 | 0930 | 7.6100 | 3.5 | 7.70 | 175.00 | 21 | 0.0300 | 0.0400 | 0.2700 | 0.4000 | 0.6200 | 1.040 |

## TABLE A5. Site 5, Paxton Creek Tributary Near Paxtonia, Pa. (01570996) (Continued)

| Date | Time | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1992 | | | | | | | | | | | | |
| 04 | 1045 | 0.017 | 0.030 | 0.160 | 4.4000 | <0.5000 | 1.6100 | 5.5000 | <0.2000 | 8.9800 | 7.2100 | 52.5000 |
| 04 | 1325 | 0.010 | 0.020 | 0.070 | 3.7000 | <0.5000 | 1.5000 | 2.6400 | <0.2000 | 2.4900 | 9.0000 | 25.8000 |
| 04 | 1630 | 0.005 | 0.020 | 0.060 | 3.5000 | <0.5000 | 1.6400 | 4.6100 | 0.2400 | 1.2000 | 9.7800 | 17.9900 |
| 05 | 1110 | 0.006 | 0.020 | 0.030 | 2.6000 | <0.5000 | 1.3500 | 1.3500 | <0.2000 | 0.3800 | 4.7800 | 7.3000 |
| 06 | 1210 | 0.006 | 0.020 | 0.030 | 2.2000 | <0.5000 | 1.0500 | 1.0500 | <0.2000 | <0.2000 | 3.5100 | 3.6200 |
| 16 | 1030 | 0.004 | 0.020 | 0.020 | 2.4000 | -- | 1.0800 | 1.0800 | <0.2000 | 0.3060 | 3.4700 | 3.6300 |
| February | | | | | | | | | | | | |
| 10 | 1115 | 0.002 | 0.020 | 0.030 | 2.3000 | <1.0000 | 1.3000 | 1.3000 | <0.2000 | <0.2000 | 2.3800 | 2.4600 |
| March | | | | | | | | | | | | |
| 11 | 0632 | 0.021 | 0.040 | 0.310 | 6.1000 | <0.5000 | 2.7300 | 7.6800 | 0.3190 | 18.5000 | 5.2600 | 64.9000 |
| 11 | 0800 | 0.005 | 0.040 | 0.200 | 5.2000 | <0.5000 | 2.3200 | 5.1500 | 0.2540 | 10.2000 | 6.0700 | 45.1000 |
| 11 | 1400 | 0.005 | 0.030 | 0.090 | 4.2000 | <0.5000 | 1.8100 | 2.2900 | <0.2000 | 2.6100 | 12.0000 | 27.3000 |
| 12 | 0815 | 0.008 | 0.030 | 0.040 | 2.8000 | <0.5000 | 1.2200 | 1.3800 | <0.2000 | 0.8460 | 8.7000 | 12.2000 |
| 13 | 1230 | 0.008 | 0.020 | 0.030 | 2.4000 | <0.5000 | 0.9960 | 1.2600 | <0.2000 | 0.3250 | 4.7400 | 42.3000 |
| 25 | 1255 | 0.005 | 0.020 | 0.030 | 2.3000 | <0.5000 | 1.4900 | 1.4900 | <0.2000 | 0.2390 | 3.9400 | 5.5700 |
| April | | | | | | | | | | | | |
| 20 | 1150 | 0.005 | 0.020 | 0.020 | 2.8000 | <0.4000 | 1.0100 | 1.1200 | <0.2000 | 0.2190 | 3.0400 | 3.4800 |
| May | | | | | | | | | | | | |
| 12 | 1010 | 0.004 | 0.020 | 0.020 | 2.6000 | <0.5000 | 1.6800 | 1.6800 | -- | <0.2000 | 2.7800 | 2.9300 |
| 30 | 1910 | 0.020 | 0.050 | 0.190 | 8.9000 | <0.5000 | 2.1900 | 4.9200 | 0.2000 | 6.8400 | 7.6000 | 37.6600 |
| 30 | 2020 | 0.025 | 0.050 | 0.200 | 4.8000 | <0.5000 | 1.4300 | 9.2300 | 0.2700 | 21.2200 | 4.6200 | 101.9600 |
| 30 | 2220 | 0.012 | 0.030 | 0.380 | 6.8000 | <0.5000 | 0.9500 | 13.9000 | <0.2000 | 27.4900 | 1.9600 | 118.0000 |
| 31 | 0830 | 0.003 | 0.020 | 0.090 | 5.7000 | <0.5000 | 1.1400 | 1.6100 | <0.2000 | 2.2700 | 12.0100 | 18.9800 |
| 31 | 1855 | 0.003 | 0.020 | 0.070 | 4.9000 | <0.5000 | 1.0400 | 1.1300 | <0.2000 | 1.0700 | 3.6800 | 7.8100 |
| June | | | | | | | | | | | | |
| 18 | 1005 | 0.019 | 0.030 | 0.040 | 2.7000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 2.2500 | 2.2500 |

TABLE A5. Site 5, Paxton Creek Tributary Near Paxtonia, Pa. (01570996) (Continued)

| Date | Time | Phosphorus, Ortho, Dissolved | Phosphorus, Dissolved | Phosphorus, Total | Carbon, Organic, Total | Oil and Grease, Total, Recoverable Electrometric | Copper, Dissolved | Copper, Total, Recoverable | Lead, Dissolved | Lead, Total, Recoverable | Zinc, Dissolved | Zinc, Total, Recoverable |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mg/l as P (00671) | mg/l as P (00666) | mg/l. as P (00665) | mg/l as C (00680) | mg/l (00560) | µg/l as Cu (01040) | µg/l (01119) | µg/l as Pb (01049) | µg/l (01114) | µg/l as Zn (01090) | µg/l (01094) |
| July 1992 | | | | | | | | | | | | |
| 03 | 1635 | 0.017 | 0.041 | 0.230 | 13.6000 | <0.5000 | 3.8500 | 9.8000 | 0.6700 | 19.5000 | 19.8000 | 91.2000 |
| 03 | 1800 | 0.029 | 0.045 | 0.230 | 7.8000 | <0.5000 | 1.9200 | 9.4900 | 0.8620 | 19.5000 | 13.8000 | 96.7000 |
| 03 | 2000 | 0.026 | 0.044 | 0.090 | 6.2000 | <0.5000 | 1.4900 | 2.6400 | 0.5300 | 3.3400 | 6.0800 | 21.7000 |
| 04 | 0850 | 0.017 | 0.036 | 0.070 | 5.7000 | <0.5000 | 0.8900 | 1.3100 | 0.2000 | 1.1600 | 4.5500 | 10.5000 |
| 04 | 2130 | 0.024 | 0.038 | 0.050 | 4.7000 | <0.5000 | 0.8600 | 1.0500 | 0.2600 | 0.5200 | 3.3300 | 3.5800 |
| 15 | 1040 | 0.019 | 0.038 | 0.060 | 4.0000 | <0.5000 | 1.2900 | 1.2900 | <0.2000 | 0.3800 | 2.2300 | 3.6500 |
| August | | | | | | | | | | | | |
| 19 | 1100 | <0.002 | <0.020 | 0.060 | 4.4000 | <0.5000 | 0.9830 | 1.2000 | <0.2000 | 0.4890 | 1.2800 | 3.2800 |
| 28 | 1900 | 0.073 | 0.109 | 0.920 | 5.3000 | 0.8000 | 1.3200 | 29.7000 | <0.2000 | 63.8000 | 3.4000 | 238.0000 |
| 28 | 2115 | 0.013 | 0.047 | 0.180 | 5.4000 | <0.5000 | 1.3700 | 7.9300 | 0.3500 | 7.1400 | 4.6400 | 42.5000 |
| 28 | 2255 | 0.006 | 0.039 | 0.140 | 5.5000 | 0.5000 | 1.2200 | 2.6800 | 0.2600 | 4.5000 | 3.7400 | 23.4000 |
| 29 | 0855 | 0.007 | 0.038 | 0.080 | 4.4000 | <0.5000 | 2.4700 | 2.4900 | 0.3380 | 1.4400 | 5.1200 | 9.1800 |
| 30 | 1045 | 0.014 | 0.034 | 0.040 | 3.0000 | 0.7000 | 0.8410 | 1.3800 | <0.2000 | 0.4450 | 1.3100 | 2.4300 |
| September | | | | | | | | | | | | |
| 21 | 0800 | 0.018 | 0.034 | 0.030 | 2.6000 | <0.5000 | 1.6000 | 1.6000 | <0.2000 | <0.2000 | 1.1100 | 1.1100 |
| 21 | 0805 | 0.018 | 0.034 | 0.040 | 2.5000 | <0.5000 | 0.9140 | 0.9140 | <0.2000 | <0.2000 | 1.7100 | 1.7100 |
| October | | | | | | | | | | | | |
| 15 | 1200 | 0.011 | 0.030 | 0.030 | 2.6000 | <0.5000 | <0.8000 | 0.8000 | <0.2000 | <0.2000 | 1.5600 | 1.8900 |
| November | | | | | | | | | | | | |
| 18 | 1130 | 0.002 | 0.025 | 0.030 | 2.4000 | <0.5000 | <0.8000 | 0.9580 | <0.2000 | 0.2140 | 5.7300 | 2.4400 |
| December | | | | | | | | | | | | |
| 09 | 1105 | 0.006 | 0.020 | 0.024 | 2.1000 | <0.5000 | 3.9200 | 4.3400 | <0.2000 | <0.2000 | 10.1000 | 93.2000 |
| 17 | 0515 | <0.002 | 0.020 | 0.074 | 3.0000 | <0.5000 | <0.8000 | 1.1100 | 1.7000 | 1.7000 | 7.8400 | 19.8000 |
| 17 | 0820 | 0.008 | 0.036 | 0.185 | 4.3000 | 0.5400 | 2.0900 | 4.8100 | 7.0000 | 7.0000 | 12.4000 | 56.5000 |
| 17 | 1225 | 0.009 | 0.037 | 0.100 | 4.5000 | <0.5000 | 0.8360 | 2.3400 | 2.9000 | 2.9000 | 15.5000 | 39.0000 |
| 18 | 0520 | 0.006 | 0.023 | 0.048 | 3.1000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 10.7000 | 16.0000 |
| 19 | 1340 | 0.004 | 0.020 | 0.042 | 2.5000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 5.4300 | 6.4400 |

TABLE A5. Site 5, Paxton Creek Tributary Near Paxtonia, Pa. (01570996) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1993 | | | | | | | | | | | | |
| 11 | 0840 | <0.002 | 0.016 | 0.020 | 2.2000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 4.9500 | 5.8600 |
| February | | | | | | | | | | | | |
| 09 | 1115 | <0.002 | <0.020 | 0.020 | 2.1000 | 0.6300 | 1.0600 | 1.0600 | <0.2000 | <0.2000 | 2.3700 | 2.7000 |
| March | | | | | | | | | | | | |
| 04 | 0947 | 0.004 | 0.026 | 0.540 | 7.9000 | 3.0000 | 2.7200 | 21.7000 | <0.2000 | 59.8000 | 6.0900 | 234.0000 |
| 04 | 1455 | 0.010 | 0.038 | 0.270 | 5.6000 | 1.6000 | 2.0000 | 9.8400 | <0.2000 | 21.9000 | 6.5200 | 101.0000 |
| 04 | 1930 | 0.027 | 0.059 | 0.200 | 5.3000 | 0.6300 | 2.4800 | 6.2800 | <0.2000 | 11.3000 | 13.3000 | 60.1000 |
| 05 | 0925 | 0.038 | 0.068 | 0.120 | 4.1000 | 1.5000 | 2.1600 | 2.8200 | <0.2000 | 2.1600 | 21.4000 | 32.0000 |
| 06 | 1130 | 0.011 | 0.035 | 0.060 | 3.5000 | 0.5800 | 1.8000 | 2.0900 | <0.2000 | 0.9470 | 23.2000 | 29.4000 |
| 22 | 1055 | <0.010 | <0.020 | 0.030 | 1.3000 | <0.5000 | 1.1100 | 1.1400 | <0.2000 | 0.7700 | 5.2900 | 12.3000 |
| April | | | | | | | | | | | | |
| 28 | 1030 | 0.003 | 0.026 | 0.040 | 2.3000 | 1.3000 | <0.8000 | 1.1800 | <0.2000 | 2.8800 | 3.7500 | 5.4000 |
| May | | | | | | | | | | | | |
| 05 | 1005 | <0.002 | 0.031 | 0.110 | 6.8000 | 0.5600 | 3.0900 | 4.5300 | 0.4600 | 5.5200 | 9.8600 | 34.0000 |
| 05 | 1845 | 0.002 | 0.021 | 0.220 | 6.3000 | 0.9900 | 1.7900 | 6.1500 | 0.2680 | 12.5000 | 4.8300 | 68.2000 |
| 05 | 2010 | 0.024 | 0.027 | 0.180 | 7.0000 | 0.7300 | 2.5500 | 6.6600 | 0.3900 | 10.9000 | 7.8700 | 60.7000 |
| 06 | 0735 | <0.002 | <0.020 | 0.040 | 3.6000 | <0.5000 | 1.3900 | 1.7300 | 0.2600 | 0.7700 | 4.7100 | 7.5000 |
| 07 | 0845 | <0.002 | 0.020 | 0.030 | 2.6000 | <0.5000 | 1.4700 | 1.4700 | <0.2000 | 0.3200 | 3.7400 | 4.8600 |
| 18 | 1040 | <0.002 | <0.020 | 0.020 | 2.3000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 1.8900 | 1.8900 |
| 18 | 1045 | <0.002 | <0.020 | <0.020 | 2.3000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 3.0100 | 1.4100 |
| June | | | | | | | | | | | | |
| 23 | 1110 | 0.007 | <0.020 | 0.040 | 2.7000 | <0.5000 | 1.2600 | 1.4900 | <0.2000 | 1.1000 | 2.7400 | 3.2400 |

# TABLE A5. Site 5, Paxton Creek Tributary Near Paxtonia, Pa. (01570996) (Continued)

| Date | Time | Phosphorus, Ortho, Dissolved | Phosphorus, Dissolved | Phosphorus, Total | Carbon, Organic, Total | Oil and Grease, Total, Recoverable Electrometric | Copper, Dissolved | Copper, Total, Recoverable | Lead, Dissolved | Lead, Total, Recoverable | Zinc, Dissolved | Zinc, Total, Recoverable |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | mg/l as P (00671) | mg/l as P (00666) | mg/l. as P (00665) | mg/l as C (00680) | mg/l (00560) | µg/l as Cu (01040) | µg/l (01119) | µg/l as Pb (01049) | µg/l (01114) | µg/l as Zn (01090) | µg/l (01094) |
| July 1993 |  |  |  |  |  |  |  |  |  |  |  |  |
| 02 | 0855 | 0.007 | 0.045 | 0.300 | 5.3000 | <0.5000 | 1.0600 | 5.7600 | <0.2000 | 13.7000 | 5.1800 | 137.0000 |
| 02 | 1020 | <0.002 | 0.046 | 0.220 | 4.6000 | <0.5000 | 1.4000 | 7.0200 | <0.2000 | 15.8000 | 3.8400 | 72.9000 |
| 02 | 1340 | <0.002 | 0.029 | 0.140 | 5.2000 | <0.5000 | 1.4400 | 3.8400 | <0.2000 | 7.7400 | 3.6800 | 40.7000 |
| 02 | 1820 | <0.002 | 0.033 | 0.130 | 5.8000 | <0.5000 | 1.4200 | 3.5500 | <0.2000 | 5.1600 | 5.7700 | 31.9000 |
| 03 | 0930 | <0.002 | 0.030 | 0.060 | 4.3000 | 0.5900 | 1.5000 | 1.7000 | <0.2000 | 0.9400 | 4.3200 | 9.9800 |
| 15 | 1035 | 0.017 | 0.031 | 0.060 | 2.5000 | <0.5000 | 0.9990 | 0.9990 | <0.2000 | <0.2000 | 2.6100 | 2.6400 |
| 15 | 1040 | 0.017 | 0.033 | 0.050 | 2.5000 | <0.5000 | 0.9610 | 1.0800 | <0.2000 | <0.2000 | 3.4500 | 3.5300 |
| August |  |  |  |  |  |  |  |  |  |  |  |  |
| 19 | 1425 | 0.020 | 0.030 | 0.040 | 2.7000 | <0.5000 | 1.2200 | 1.2200 | 0.2500 | <0.2000 | 4.2600 | 4.2600 |
| September |  |  |  |  |  |  |  |  |  |  |  |  |
| 29 | 1050 | <0.011 | 0.029 | 0.040 | 3.0000 | <0.5000 | 1.1000 | 1.1400 | <0.2000 | 0.2740 | 3.5700 | 3.7900 |
| 29 | 1055 | 0.007 | 0.028 | 0.040 | 2.9000 | -- | 1.3900 | 1.1500 | 0.2030 | 0.3500 | 4.5200 | 9.6200 |
| October |  |  |  |  |  |  |  |  |  |  |  |  |
| 20 | 1035 | 0.015 | 0.041 | 0.040 | 4.1000 | <0.5000 | 1.5000 | 1.5000 | <0.2000 | 0.4370 | 4.0300 | 4.5300 |
| November |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | 1035 | 0.002 | 0.024 | 0.040 | 2.9000 | <0.5000 | 1.1800 | 1.1800 | <0.2000 | <0.2000 | 2.9700 | 2.9700 |
| 17 | 1826 | <0.002 | 0.063 | 0.970 | 10.7000 | <0.5000 | 1.3900 | 33.4000 | 0.4300 | 60.3000 | 6.1200 | 340.0000 |
| 17 | 1949 | 0.022 | 0.062 | 0.200 | 4.8000 | <0.5000 | 1.6300 | 5.0400 | 0.4100 | 9.1300 | 8.7800 | 55.5000 |
| 17 | 2143 | 0.003 | 0.043 | 0.100 | 4.9000 | <0.5000 | 1.4500 | 2.9200 | 0.2800 | 3.4600 | 9.2400 | 27.4000 |
| 18 | 0602 | 0.002 | 0.029 | 0.050 | 3.9000 | <0.5000 | 1.2300 | 1.5200 | 0.2700 | 1.2600 | 5.0900 | 7.8800 |
| 18 | 1735 | 0.004 | 0.021 | 0.050 | 3.2000 | <0.5000 | 1.1800 | 1.3300 | 0.2400 | 0.6200 | 4.6900 | 4.6400 |
| December |  |  |  |  |  |  |  |  |  |  |  |  |
| 21 | 0930 | 0.009 | 0.036 | 0.050 | 3.9000 | <0.5000 | 1.1800 | 2.0800 | 0.2030 | 2.8300 | 11.6000 | 23.5000 |

# TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2+NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1992 | | | | | | | | | | | | |
| 04 | 1100 | 56.2000 | -- | 7.85 | -- | 196 | 0.0200 | 0.0300 | <0.2000 | 0.7300 | 1.0100 | 1.740 |
| 04 | 1210 | 62.2000 | -- | -- | -- | -- | <0.0200 | 0.0400 | <0.2000 | 0.3500 | 0.5300 | 0.880 |
| 04 | 1315 | 50.2000 | -- | 7.85 | -- | 76 | 0.0200 | 0.0400 | <0.2000 | 0.4000 | 0.9200 | 1.320 |
| 04 | 1615 | 31.0000 | -- | 7.90 | -- | 58 | 0.0300 | 0.0500 | <0.2000 | 0.4100 | 0.8800 | 1.290 |
| 04 | 2015 | 21.4000 | -- | 7.90 | -- | 50 | 0.0300 | 0.0300 | 0.3100 | 0.3600 | 1.0300 | 1.390 |
| 05 | 0215 | 16.0000 | -- | 7.85 | -- | 17 | 0.0300 | 0.0300 | <0.2000 | 0.2300 | 1.1400 | 1.370 |
| 05 | 0950 | 13.0000 | -- | 8.10 | -- | 4 | 0.0200 | 0.0500 | <0.2000 | <0.2000 | 1.3000 | 1.400 |
| 06 | 1000 | 9.9500 | 8.3 | 8.25 | -- | 1 | 0.0200 | 0.0300 | <0.2000 | <0.2000 | 1.7600 | 1.860 |
| 16 | 1245 | 7.4700 | 1.0 | 8.60 | -- | 14 | 0.0400 | 0.0700 | <0.2000 | <0.2000 | 1.3600 | 1.460 |
| February | | | | | | | | | | | | |
| 10 | 1130 | 2.2100 | -- | 8.10 | -- | 17 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | 0.8600 | 0.960 |
| March | | | | | | | | | | | | |
| 11 | 0145 | 85.1000 | -- | -- | -- | 434 | -- | -- | -- | -- | -- | -- |
| 11 | 0200 | 98.1000 | -- | -- | -- | 358 | -- | -- | -- | -- | -- | -- |
| 11 | 0215 | 117.0000 | -- | -- | -- | 348 | -- | -- | -- | -- | -- | -- |
| 11 | 0230 | 136.0000 | -- | -- | -- | 427 | -- | -- | -- | -- | -- | -- |
| 11 | 0245 | 151.0000 | -- | -- | -- | 486 | -- | -- | -- | -- | -- | -- |
| 11 | 0300 | 161.0000 | -- | -- | -- | 402 | -- | -- | -- | -- | -- | -- |
| 11 | 0315 | 175.0000 | -- | -- | -- | 417 | -- | -- | -- | -- | -- | -- |
| 11 | 0330 | 183.0000 | -- | -- | -- | 474 | -- | -- | -- | -- | -- | -- |
| 11 | 0345 | 194.0000 | -- | -- | -- | 664 | -- | -- | -- | -- | -- | -- |
| 11 | 0400 | 208.0000 | -- | -- | -- | 545 | -- | -- | -- | -- | -- | -- |
| 11 | 0415 | 244.0000 | -- | -- | -- | 596 | -- | -- | -- | -- | -- | -- |
| 11 | 0430 | 310.0000 | -- | -- | -- | 737 | -- | -- | -- | -- | -- | -- |
| 11 | 0445 | 395.0000 | -- | -- | -- | 984 | -- | -- | -- | -- | -- | -- |
| 11 | 0500 | 524.0000 | -- | -- | -- | 1,142 | -- | -- | -- | -- | -- | -- |

TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2+NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March 1992 | | | | | | | | | | | | |
| 11 | 0515 | 693.0000 | -- | -- | -- | 1,072 | -- | -- | -- | -- | -- | -- |
| 11 | 0535 | 947.0000 | 8.5 | 6.90 | -- | 1,541 | 0.0800 | 0.1000 | <0.2000 | 5.7600 | 0.9500 | 6.730 |
| 11 | 0545 | 1,060.0000 | -- | -- | -- | 1,996 | -- | -- | -- | -- | -- | -- |
| 11 | 0600 | 1,120.0000 | -- | -- | -- | 2,342 | -- | -- | -- | -- | -- | -- |
| 11 | 0615 | 1,160.0000 | -- | -- | -- | 2,281 | -- | -- | -- | -- | -- | -- |
| 11 | 0630 | 1,130.0000 | -- | -- | -- | 1,984 | -- | -- | -- | -- | -- | -- |
| 11 | 0645 | 1,070.0000 | 8.0 | 6.80 | -- | 1,539 | 0.0600 | 0.0800 | <0.2000 | 3.0000 | 0.9200 | 3.970 |
| 11 | 0700 | 950.0000 | -- | -- | -- | 1,169 | -- | -- | -- | -- | -- | -- |
| 11 | 0730 | 680.0000 | -- | -- | -- | 789 | -- | -- | -- | -- | -- | -- |
| 11 | 0745 | 579.0000 | -- | -- | -- | 706 | -- | -- | -- | -- | -- | -- |
| 11 | 0800 | 490.0000 | -- | -- | -- | 626 | -- | -- | -- | -- | -- | -- |
| 11 | 0815 | 424.0000 | -- | -- | -- | 554 | -- | -- | -- | -- | -- | -- |
| 11 | 0830 | 363.0000 | -- | -- | -- | 514 | -- | -- | -- | -- | -- | -- |
| 11 | 0845 | 5,314.0000 | -- | -- | -- | 438 | -- | -- | -- | -- | -- | -- |
| 11 | 0900 | 276.0000 | -- | -- | -- | 367 | -- | -- | -- | -- | -- | -- |
| 11 | 0945 | 196.0000 | -- | -- | -- | 308 | -- | -- | -- | -- | -- | -- |
| 11 | 1000 | 181.0000 | -- | -- | -- | 244 | -- | -- | -- | -- | -- | -- |
| 11 | 1015 | 165.0000 | -- | -- | -- | 254 | -- | -- | -- | -- | -- | -- |
| 11 | 1030 | 155.0000 | 6.0 | 6.90 | -- | 229 | 0.0400 | 0.0600 | <0.2000 | 0.8600 | 1.4100 | 2.290 |
| 11 | 1045 | 146.0000 | -- | -- | -- | 212 | -- | -- | -- | -- | -- | -- |
| 11 | 1100 | 138.0000 | -- | -- | -- | 210 | -- | -- | -- | -- | -- | -- |
| 11 | 1115 | 130.0000 | -- | -- | -- | 168 | -- | -- | -- | -- | -- | -- |
| 11 | 1130 | 122.0000 | -- | -- | -- | 164 | -- | -- | -- | -- | -- | -- |
| 11 | 1145 | 118.0000 | -- | -- | -- | 136 | -- | -- | -- | -- | -- | -- |
| 11 | 1200 | 109.0000 | -- | -- | -- | 129 | -- | -- | -- | -- | -- | -- |
| 11 | 1215 | 109.0000 | -- | -- | -- | 117 | -- | -- | -- | -- | -- | -- |

TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temper-ature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conduct-ance µs/cm (00095) | Sus-pended Sedi-ment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March 1992 | | | | | | | | | | | | |
| 11 | 1230 | 106.0000 | -- | -- | -- | 112 | -- | -- | -- | -- | -- | -- |
| 11 | 1245 | 102.0000 | -- | -- | -- | 105 | -- | -- | -- | -- | -- | -- |
| 11 | 1300 | 99.0000 | -- | -- | -- | 96 | -- | -- | -- | -- | -- | -- |
| 11 | 1315 | 97.0000 | -- | -- | -- | 106 | -- | -- | -- | -- | -- | -- |
| 11 | 1330 | 95.0000 | -- | -- | -- | 101 | -- | -- | -- | -- | -- | -- |
| 11 | 1345 | 93.0000 | -- | -- | -- | 92 | -- | -- | -- | -- | -- | -- |
| 11 | 1400 | 90.0000 | -- | -- | -- | 86 | -- | -- | -- | -- | -- | -- |
| 11 | 1415 | 88.0000 | -- | -- | -- | 81 | -- | -- | -- | -- | -- | -- |
| 11 | 1430 | 88.0000 | -- | -- | -- | 78 | -- | -- | -- | -- | -- | -- |
| 11 | 1445 | 85.0000 | 6.0 | 7.00 | -- | -- | 0.0200 | 0.0500 | <0.2000 | <0.2000 | 1.6500 | 1.750 |
| 12 | 0700 | 47.0000 | 4.0 | 6.90 | -- | -- | 0.0200 | 0.0400 | <0.2000 | <0.2000 | 2.0200 | 2.120 |
| 13 | 1245 | 29.0000 | 6.5 | 7.10 | -- | -- | 0.0200 | 0.0200 | 0.2600 | 0.3200 | 2.1100 | 2.430 |
| 25 | 1350 | 18.2000 | 7.5 | -- | -- | -- | 0.0300 | 0.0300 | <0.2000 | <0.2000 | 1.4700 | 1.570 |
| April | | | | | | | | | | | | |
| 20 | 1210 | 4.9300 | 9.5 | -- | -- | -- | 0.0200 | 0.0300 | <0.2000 | <0.2000 | 0.7300 | 0.830 |
| May | | | | | | | | | | | | |
| 12 | 1040 | 5.4500 | 19.0 | 8.30 | -- | -- | 0.0500 | 0.0600 | 0.2400 | 0.2400 | 0.7700 | 1.010 |
| 30 | 1925 | 7.0000 | -- | 7.30 | -- | 82 | 0.1200 | 0.1300 | 0.3500 | 0.6400 | 0.8400 | 1.540 |
| 30 | 2040 | 9.9500 | 19.0 | 7.40 | -- | 170 | 0.1000 | 0.1200 | 0.2300 | 0.9500 | 0.7900 | 1.760 |
| 30 | 2255 | 41.0000 | -- | 7.35 | -- | 359 | 0.0800 | 0.1000 | 0.2200 | 0.0600 | 0.5700 | 1.650 |
| 31 | 0030 | 58.0000 | -- | 7.35 | -- | 216 | 0.0800 | 0.0800 | 0.3000 | 1.2300 | 0.6600 | 1.910 |
| 31 | 0650 | 79.0000 | 16.0 | 7.40 | -- | 138 | 0.0700 | 0.0900 | 0.4300 | 0.8800 | 0.5900 | 1.500 |
| 31 | 1910 | 13.0000 | 18.0 | 7.35 | -- | 44 | <0.0200 | 0.0400 | 0.3300 | 0.4900 | 0.8600 | 1.370 |
| June | | | | | | | | | | | | |
| 18 | 1120 | 2.3000 | 15.0 | 7.70 | -- | -- | 0.0400 | 0.0400 | 0.2700 | 0.2700 | 0.7500 | 1.020 |

## TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1992 | | | | | | | | | | | | |
| 03 | 1745 | 28.0600 | 15.0 | 7.40 | -- | 121 | 0.0700 | 0.0700 | 0.2400 | 0.9800 | 0.6600 | 1.730 |
| 03 | 1900 | 34.0000 | -- | 7.60 | -- | 141 | 0.0500 | 0.0500 | 0.2000 | 0.9000 | 0.4600 | 1.410 |
| 03 | 2100 | 21.0000 | -- | 7.50 | -- | 45 | <0.0200 | 0.0300 | 0.3000 | 0.7900 | 0.6400 | 1.430 |
| 04 | 0445 | 55.0000 | -- | 7.60 | -- | 255 | 0.0200 | 0.0400 | 0.3000 | 1.3600 | 0.7700 | 2.200 |
| 04 | 0530 | 40.0000 | -- | 7.60 | -- | 123 | 0.0400 | 0.1400 | 0.3800 | 0.9800 | 0.7000 | 1.730 |
| 04 | 0750 | 19.0000 | 18.0 | 7.70 | -- | 110 | 0.0400 | 0.0500 | 0.3800 | 0.9300 | 0.7300 | 1.720 |
| 04 | 2000 | 3.8000 | 22.0 | 7.70 | -- | 17 | 0.0200 | 0.0400 | 0.3800 | 0.4300 | 0.7900 | 1.220 |
| 04 | 2005 | 3.8000 | -- | -- | -- | -- | 0.0200 | 0.0400 | 0.3800 | 0.4300 | 0.7900 | 1.220 |
| 29 | 1100 | 2.3000 | 20.0 | 7.90 | -- | 2 | <0.0200 | <0.0200 | <0.2000 | 0.2100 | 1.0100 | 1.220 |
| August | | | | | | | | | | | | |
| 19 | 1340 | 2.3000 | 19.0 | 8.00 | -- | -- | 0.0200 | 0.0200 | 0.2200 | 0.3400 | 0.8400 | 1.200 |
| 28 | 1845 | 48.0000 | -- | -- | -- | 776 | -- | -- | -- | -- | -- | -- |
| 28 | 1900 | 61.0000 | -- | -- | -- | 1,177 | -- | -- | -- | -- | -- | -- |
| 28 | 1915 | 114.0000 | -- | -- | -- | 2,133 | -- | -- | -- | -- | -- | -- |
| 28 | 1930 | 130.0000 | -- | -- | -- | 1,319 | -- | -- | -- | -- | -- | -- |
| 28 | 1935 | 13.0000 | 21.0 | 7.70 | -- | 1,420 | 0.0400 | 0.0600 | 0.3700 | 3.6500 | 0.7300 | 4.380 |
| 28 | 1945 | 116.00 | -- | -- | -- | 1,270 | -- | -- | -- | -- | -- | -- |
| 28 | 2000 | 241.00 | -- | -- | -- | 1,962 | -- | -- | -- | -- | -- | -- |
| 28 | 2015 | 359.00 | -- | -- | -- | 1,109 | -- | -- | -- | -- | -- | -- |
| 28 | 2030 | 412.00 | -- | -- | -- | 1,646 | -- | -- | -- | -- | -- | -- |
| 28 | 2045 | 363.0000 | -- | -- | -- | 1,351 | -- | -- | -- | -- | -- | -- |
| 28 | 2055 | 321.0000 | 21.0 | 7.70 | -- | 1,032 | 0.0600 | 0.0700 | 0.4200 | 2.8700 | 0.5900 | 3.460 |
| 28 | 2100 | 285.0000 | -- | -- | -- | 1,090 | -- | -- | -- | -- | -- | -- |
| 28 | 2115 | 213.0000 | -- | -- | -- | 834 | -- | -- | -- | -- | -- | -- |
| 28 | 2130 | 148.0000 | -- | -- | -- | 846 | -- | -- | -- | -- | -- | -- |
| 28 | 2145 | 106.0000 | -- | -- | -- | 765 | -- | -- | -- | -- | -- | -- |

TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Discharge, Instantaneous | Temperature | pH Water, Whole Field | Specific Conductance | Suspended Sediment | Nitrogen, Ammonia, Dissolved | Nitrogen, Ammonia, Total | Nitrogen, Kjeldahl, Dissolved | Nitrogen, Kjeldahl, Total | Nitrogen, $NO_2+NO_3$, Dissolved | Nitrogen, Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | cubic ft per sec. (00061) | degrees Celsius (00010) | std. units (00400) | µs/cm (00095) | mg/l (80154) | mg/l as N (00608) | mg/l as N (00610) | mg/l as N (00623) | mg/l as N (00625) | mg/l as N (00631) | mg/l as N (00600) |
| August 1992 | | | | | | | | | | | | |
| 28 | 2200 | 86.0000 | -- | -- | -- | 737 | -- | -- | -- | -- | -- | -- |
| 28 | 2205 | 92.0000 | 20.0 | 7.70 | -- | 669 | 0.0600 | 0.0900 | 0.4300 | 2.0500 | 0.7000 | 2.750 |
| 28 | 2215 | 75.0000 | -- | -- | -- | 619 | -- | -- | -- | -- | -- | -- |
| 28 | 2230 | 67.0000 | -- | -- | -- | 549 | -- | -- | -- | -- | -- | -- |
| 28 | 2245 | 61.0000 | -- | -- | -- | 490 | -- | -- | -- | -- | -- | -- |
| 28 | 2300 | 55.0000 | -- | -- | -- | 423 | -- | -- | -- | -- | -- | -- |
| 28 | 2315 | 50.0000 | -- | -- | -- | 315 | -- | -- | -- | -- | -- | -- |
| 28 | 2330 | 45.0000 | -- | -- | -- | 303 | -- | -- | -- | -- | -- | -- |
| 28 | 2335 | 48.0600 | 20.0 | 7.60 | -- | 324 | 0.0700 | 0.0900 | 0.6000 | 1.8500 | 0.8001 | 2.660 |
| 28 | 2345 | 40.0000 | -- | -- | -- | 331 | -- | -- | -- | -- | -- | -- |
| 28 | 2400 | 36.0000 | -- | -- | -- | 304 | -- | -- | -- | -- | -- | -- |
| 29 | 0830 | 7.3000 | 20.0 | 7.60 | -- | 74 | 0.0400 | 0.0500 | 0.4300 | 1.0900 | 0.8800 | 1.970 |
| 29 | 1730 | 4.5000 | 20.0 | 7.70 | -- | 47 | 0.0300 | 0.0300 | 0.4300 | 0.7700 | 0.9000 | 1.670 |
| 30 | 1410 | 2.3000 | 20.0 | 7.80 | -- | 24 | 0.0200 | 0.0200 | 0.3800 | 0.6500 | 1.0800 | 1.730 |
| September | | | | | | | | | | | | |
| 21 | 1005 | 1.6000 | 16.0 | 8.10 | -- | 12 | 0.0200 | 0.0300 | 0.3400 | 0.3700 | 0.8400 | 1.230 |
| 25 | 1900 | 52.0000 | -- | -- | -- | 106 | -- | -- | -- | -- | -- | -- |
| 25 | 1930 | 52.0000 | -- | -- | -- | 676 | -- | -- | -- | -- | -- | -- |
| 25 | 2000 | 43.0000 | -- | -- | -- | 69 | -- | -- | -- | -- | -- | -- |
| 25 | 2037 | 34.0000 | -- | -- | -- | 110 | 0.0300 | 0.0300 | 0.6200 | 0.9900 | 0.5900 | 1.670 |
| 26 | 0030 | 43.0000 | -- | -- | -- | 301 | -- | -- | -- | -- | -- | -- |
| 26 | 0107 | 125.0000 | -- | -- | -- | 576 | <0.0200 | 0.0200 | 0.6400 | 2.0300 | 0.4800 | 2.540 |
| 26 | 0145 | 405.0000 | -- | -- | -- | 1,539 | -- | -- | -- | -- | -- | -- |
| 26 | 0200 | 656.0000 | -- | -- | -- | 1,460 | -- | -- | -- | -- | -- | -- |
| 26 | 0215 | 822.0000 | -- | -- | -- | 1,174 | -- | -- | -- | -- | -- | -- |
| 26 | 0322 | 866.0000 | 20.0 | 7.70 | -- | 565 | 0.0300 | 0.0300 | 0.8300 | 1.7400 | 0.5900 | 2.330 |

## TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| September 1992 | | | | | | | | | | | | |
| 26 | 0400 | 752.0000 | -- | -- | -- | 417 | -- | -- | -- | -- | -- | -- |
| 26 | 0430 | 693.0000 | -- | -- | -- | 307 | -- | -- | -- | -- | -- | -- |
| 26 | 0522 | 551.0000 | -- | -- | -- | 250 | 0.0200 | 0.0300 | 1.2700 | 1.7500 | 0.7000 | 2.450 |
| 26 | 0600 | 412.0000 | -- | -- | -- | 215 | -- | -- | -- | -- | -- | -- |
| 26 | 0630 | 375.0000 | -- | -- | -- | 186 | -- | -- | -- | -- | -- | -- |
| 26 | 0700 | 391.0000 | -- | -- | -- | 126 | -- | -- | -- | -- | -- | -- |
| 26 | 0730 | 399.0000 | -- | -- | -- | 169 | -- | -- | -- | -- | -- | -- |
| 26 | 0807 | 314.0000 | -- | -- | -- | 162 | 0.0300 | 0.0300 | 0.9000 | 1.5200 | 0.8400 | 2.360 |
| 26 | 0945 | 157.0000 | -- | -- | -- | 94 | -- | -- | -- | -- | -- | -- |
| 26 | 1045 | 108.0000 | -- | -- | -- | 80 | -- | -- | -- | -- | -- | -- |
| 26 | 1145 | 86.0000 | -- | -- | -- | 62 | -- | -- | -- | -- | -- | -- |
| 26 | 1307 | 71.0000 | -- | -- | -- | 54 | 0.0200 | 0.0200 | 1.2100 | 1.3700 | 1.2300 | 2.600 |
| 26 | 1315 | 50.0000 | -- | -- | -- | 34 | -- | -- | -- | -- | -- | -- |
| October | | | | | | | | | | | | |
| 09 | 1922 | 490.0000 | -- | 6.90 | 170.00 | 910 | 0.0500 | 0.0500 | 0.7600 | 2.8600 | 0.5700 | 3.430 |
| 09 | 2022 | 1,230.0000 | 20.0 | 6.90 | 140.00 | 1,560 | 0.0300 | 0.0400 | 0.7400 | 3.6500 | 0.5700 | 4.220 |
| 09 | 2122 | 310.0000 | -- | 6.92 | 140.00 | 558 | 0.0400 | 0.0500 | 0.6900 | 2.3800 | 0.5900 | 2.970 |
| 15 | 0915 | 5.9100 | 11.0 | 7.54 | 380.00 | 1 | 0.0500 | 0.0500 | 0.2000 | 0.2300 | 1.3000 | 1.530 |
| November | | | | | | | | | | | | |
| 18 | 1210 | 5.6500 | 7.0 | 7.50 | 300.00 | 4 | 0.1300 | 0.1700 | 0.3100 | 0.4870 | 1.1000 | 1.587 |
| 22 | 2330 | 273.0000 | -- | -- | -- | 292 | -- | -- | -- | -- | -- | -- |
| 23 | 0130 | 1,610.0000 | -- | -- | -- | 1,655 | -- | -- | -- | -- | -- | -- |
| 23 | 0230 | 1,900.0000 | -- | -- | -- | 1,568 | -- | -- | -- | -- | -- | -- |
| 23 | 0330 | 1,490.0000 | -- | -- | -- | 729 | -- | -- | -- | -- | -- | -- |
| 23 | 0430 | 720.0000 | -- | -- | -- | 544 | -- | -- | -- | -- | -- | -- |

TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| November 1992 | | | | | | | | | | | | |
| 23 | 0530 | 730.0000 | -- | -- | -- | 592 | -- | -- | -- | -- | -- | -- |
| 23 | 0630 | 840.0000 | -- | -- | -- | 481 | -- | -- | -- | -- | -- | -- |
| 23 | 0730 | 610.0000 | -- | -- | -- | 334 | -- | -- | -- | -- | -- | -- |
| 23 | 0830 | 375.0000 | -- | -- | -- | 322 | -- | -- | -- | -- | -- | -- |
| 23 | 0930 | 230.0000 | -- | -- | -- | 183 | -- | -- | -- | -- | -- | -- |
| 23 | 1100 | 159.0000 | -- | -- | -- | 126 | -- | -- | -- | -- | -- | -- |
| December | | | | | | | | | | | | |
| 09 | 1130 | 5.5000 | 3.5 | 8.40 | 336.00 | 5 | <0.0200 | <0.0200 | 0.2700 | 0.2700 | 1.1200 | 1.390 |
| 17 | 0610 | 30.3000 | 5.5 | 7.45 | 292.00 | 42 | 0.0400 | 0.0400 | <0.2000 | 0.7200 | 0.6400 | 1.360 |
| 17 | 0905 | 98.1000 | 5.0 | 7.30 | 255.00 | 53 | 0.0400 | 0.0400 | 0.2400 | 0.5900 | 0.9500 | 1.540 |
| 17 | 1105 | 133.0000 | 5.0 | 7.25 | 186.00 | 107 | 0.0400 | 0.0400 | 0.3100 | 0.8900 | 0.6800 | 1.570 |
| 17 | 1345 | 94.1000 | 5.0 | 7.30 | 175.00 | 69 | 0.0500 | 0.0500 | 0.3500 | 0.7200 | 0.6600 | 1.380 |
| 17 | 1715 | 62.2000 | 5.0 | 7.20 | 204.00 | 21 | 0.0400 | 0.0400 | 0.3700 | 0.5500 | 0.8600 | 1.410 |
| 18 | 0615 | 32.3000 | 4.5 | 7.60 | 282.00 | 1 | 0.0300 | 0.0400 | 0.2600 | 0.3300 | 1.3600 | 1.690 |
| 19 | 1430 | 22.0000 | 5.5 | 7.70 | 286.00 | 2 | 0.0300 | 0.0300 | 0.2700 | 0.3300 | 1.4500 | 1.780 |
| January 1993 | | | | | | | | | | | | |
| 11 | 1140 | 9.9000 | -- | 8.10 | -- | 1 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | -- | -- |
| February | | | | | | | | | | | | |
| 09 | 1230 | 4.7000 | 0.5 | 8.60 | -- | 1 | <0.0200 | <0.0200 | <0.2000 | 0.2400 | 0.9200 | 1.160 |
| March | | | | | | | | | | | | |
| 04 | 1030 | 68.9600 | 2.5 | -- | -- | 113 | <0.0200 | 0.0200 | 0.1800 | 0.9800 | 1.2100 | 2.190 |
| 04 | 1345 | 231.0000 | 2.5 | -- | -- | 719 | -- | -- | -- | -- | -- | -- |
| 04 | 1545 | 375.0000 | 0.5 | -- | -- | 610 | 0.0400 | 0.0400 | 0.3800 | 2.4200 | 1.0100 | 3.430 |
| 04 | 1730 | 585.0000 | -- | -- | -- | 985 | -- | -- | -- | -- | -- | -- |
| 04 | 2030 | 332.0000 | 1.0 | -- | -- | 226 | 0.0400 | 0.0600 | 0.3600 | 1.1800 | 1.2100 | 2.390 |
| 05 | 1020 | 107.0000 | 3.0 | -- | -- | 30 | <0.0200 | <0.0200 | 0.2900 | 0.4700 | 1.7400 | 2.210 |

TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March 1993 | | | | | | | | | | | | |
| 06 | 1235 | 68.2100 | 5.0 | -- | -- | 13 | <0.0200 | <0.0200 | 0.2200 | 0.2800 | 1.8900 | 2.170 |
| 22 | 1315 | 36.3500 | 8.0 | 8.10 | -- | 7 | <0.0200 | 0.0200 | <0.2000 | 0.2100 | 1.1700 | 1.380 |
| April | | | | | | | | | | | | |
| 10 | 1600 | 199.0000 | -- | 8.29 | -- | 1141 | 0.0600 | 0.0900 | 0.7000 | 2.0300 | 0.7700 | 2.800 |
| 10 | 1700 | 977.0000 | -- | 8.20 | -- | 1,922 | 0.0900 | 0.0900 | 0.7700 | 3.1300 | 0.5100 | 3.640 |
| 10 | 1800 | 1,200.0000 | -- | 8.10 | -- | 1,261 | 0.0900 | 0.0900 | 0.7600 | 1.7700 | 0.5100 | 2.280 |
| 10 | 1900 | 1,100.0000 | -- | 8.00 | -- | 1,301 | 0.0900 | 0.1000 | 0.9600 | 1.7000 | 0.5200 | 2.230 |
| 10 | 2000 | 1,140.0000 | -- | 8.00 | -- | 779 | 0.0600 | 0.1000 | 0.6600 | 1.1100 | 0.5100 | 1.620 |
| 10 | 2100 | 1,260.0000 | -- | 7.90 | -- | 1,406 | 0.0700 | 0.0800 | 0.5700 | 1.2200 | 0.5900 | 1.810 |
| 10 | 2200 | 1,350.0000 | -- | 7.90 | -- | 627 | 0.0700 | 0.0700 | 0.7000 | 1.4300 | 0.6300 | 2.090 |
| 10 | 2300 | 1,230.0000 | -- | 7.90 | -- | 912 | 0.0600 | 0.0700 | 0.5400 | 0.8800 | 0.6200 | 1.500 |
| 10 | 2400 | 1,100.0000 | -- | 7.80 | -- | 460 | 0.0700 | 0.1000 | 0.7700 | 1.2400 | 0.6800 | 1.920 |
| 11 | 0100 | 800.0000 | -- | 7.70 | -- | 715 | 0.0500 | 0.0500 | 0.6700 | 1.1800 | 0.7500 | 1.930 |
| 11 | 0200 | 573.0000 | -- | 7.70 | -- | 275 | 0.0600 | 0.0600 | 0.5300 | 0.9500 | 0.8100 | 1.760 |
| 11 | 0300 | 424.0000 | -- | 7.70 | -- | 418 | 0.0500 | 0.0600 | 0.5600 | 0.9300 | 0.9000 | 1.830 |
| 11 | 0400 | 321.0000 | -- | 7.60 | -- | 264 | 0.0400 | 0.0500 | 0.4400 | 0.6100 | 0.9900 | 1.600 |
| 11 | 0500 | 258.0000 | -- | 7.60 | -- | 212 | 0.0500 | 0.0700 | 0.3600 | 0.6400 | 1.0100 | 1.650 |
| 11 | 0600 | 216.0000 | -- | 7.60 | -- | 156 | 0.0400 | 0.0400 | 0.4900 | 0.6100 | 1.0800 | 1.690 |
| 11 | 0700 | 183.0000 | -- | 7.60 | -- | 172 | 0.0300 | 0.0600 | 0.5200 | 0.6200 | 1.1900 | 1.810 |
| 28 | 1240 | 32.0000 | -- | 6.78 | -- | 5 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | -- | -- |
| May | | | | | | | | | | | | |
| 05 | 1125 | 43.5000 | 15.0 | 7.68 | -- | 28 | 0.0600 | 0.1000 | 0.2900 | 0.4800 | 0.9000 | 1.380 |
| 05 | 1945 | 46.0000 | 17.0 | 7.48 | -- | 187 | 0.0400 | 0.1600 | 0.4200 | 0.8000 | 0.7900 | 1.590 |
| 05 | 2110 | 78.7000 | 16.0 | 7.58 | -- | 104 | <0.0200 | 0.0900 | <0.2000 | 0.6400 | 0.6800 | 1.320 |
| 05 | 2325 | 44.2000 | 16.0 | 8.28 | -- | 160 | 0.0400 | 0.1700 | 0.2600 | 0.7700 | 0.6800 | 1.450 |
| 06 | 0615 | 22.6000 | 14.0 | 7.68 | -- | 28 | <0.0200 | 0.0800 | 0.2700 | 0.4600 | 0.7700 | 1.230 |

TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temper-ature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conduct-ance µs/cm (00095) | Sus-pended Sedi-ment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2$+$NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| May 1993 | | | | | | | | | | | | |
| 06 | 1545 | 17.5400 | 17.0 | 8.30 | -- | 1 | <0.0200 | <0.0200 | 0.2900 | 0.2900 | 0.7500 | 1.040 |
| 07 | 1000 | 13.0100 | 16.0 | 8.30 | -- | 3 | <0.0200 | 0.0300 | <0.2000 | 0.2100 | 0.7900 | 1.000 |
| 18 | 1205 | 5.1600 | 14.0 | 7.80 | -- | 1 | 0.0300 | 0.0300 | 0.2000 | 0.2000 | 0.9700 | 1.170 |
| June | | | | | | | | | | | | |
| 20 | 2022 | 896.0000 | -- | 6.80 | -- | 3,270 | 0.2700 | 0.2700 | 0.9200 | 8.7800 | 1.2300 | 10.010 |
| 20 | 2122 | 650.0000 | -- | 6.80 | -- | 2,220 | 0.2100 | 0.2300 | 0.7100 | 3.4800 | 1.0600 | 4.540 |
| 20 | 2222 | 132.0000 | -- | 6.90 | -- | 765 | 0.2100 | 0.2100 | 0.8100 | 1.5800 | 1.0300 | 2.610 |
| 21 | 1000 | 13.0000 | -- | 6.90 | -- | 194 | 0.0800 | 0.0900 | 0.5700 | 0.8500 | 1.2500 | 2.100 |
| 23 | 1315 | 4.9300 | -- | 7.95 | -- | 14 | <0.0200 | 0.0500 | <0.2000 | 0.2900 | 1.3600 | 1.650 |
| July | | | | | | | | | | | | |
| 02 | 0950 | 184.0000 | 19.0 | 7.40 | -- | 139 | 0.1000 | 0.1200 | 0.2500 | 1.0700 | 0.9700 | 2.040 |
| 02 | 1120 | 269.0000 | 19.0 | 7.10 | -- | 190 | 0.1000 | 0.1200 | 0.2000 | 1.0000 | 0.6800 | 1.680 |
| 02 | 1305 | 205.0000 | 19.0 | 7.30 | -- | 170 | 0.0900 | 0.1400 | 0.2800 | 0.4200 | 0.8800 | 1.300 |
| 02 | 1500 | 81.0000 | 19.0 | 7.40 | -- | 260 | 0.0800 | 0.1700 | 0.2400 | 1.1600 | 0.7700 | 1.930 |
| 02 | 1725 | 51.0000 | 19.0 | 7.40 | -- | 236 | 0.0600 | 0.1200 | 0.2900 | 1.1200 | 0.6800 | 1.800 |
| 02 | 1900 | 50.0000 | 20.0 | 7.20 | -- | 114 | 0.0600 | 0.1000 | 0.3300 | 0.6600 | 0.7300 | 1.390 |
| 03 | 1040 | 18.0700 | 18.0 | 7.20 | -- | 23 | 0.0400 | 0.0500 | 0.3800 | 0.5300 | 1.2500 | 1.780 |
| 15 | 1150 | 1.6000 | 25.0 | 8.40 | -- | 1 | <0.0200 | <0.0200 | 0.2200 | 0.2800 | 0.8500 | 1.120 |
| August | | | | | | | | | | | | |
| 02 | 1320 | 2.8000 | 21.7 | 8.10 | 473.00 | -- | -- | -- | -- | -- | -- | -- |
| 19 | 1530 | 1.3000 | 24.0 | 8.20 | -- | 2 | <0.0200 | <0.0200 | <0.2000 | <0.2000 | -- | -- |
| September | | | | | | | | | | | | |
| 29 | 1310 | 5.6500 | 15.0 | 7.20 | -- | 1 | <0.0200 | <0.0200 | <0.2000 | 0.2600 | 0.5000 | 1.760 |
| October | | | | | | | | | | | | |
| 20 | 1230 | 2.7600 | 13.0 | 7.50 | -- | 1 | <0.0200 | <0.0200 | <0.2000 | 0.3100 | 0.4400 | 0.750 |

## TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Discharge, Instantaneous cubic ft per sec. (00061) | Temperature degrees Celsius (00010) | pH Water, Whole Field std. units (00400) | Specific Conductance µs/cm (00095) | Suspended Sediment mg/l (80154) | Nitrogen, Ammonia, Dissolved mg/l as N (00608) | Nitrogen, Ammonia, Total mg/l as N (00610) | Nitrogen, Kjeldahl, Dissolved mg/l as N (00623) | Nitrogen, Kjeldahl, Total mg/l as N (00625) | Nitrogen, $NO_2+NO_3$, Dissolved mg/l as N (00631) | Nitrogen, Total mg/l as N (00600) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| November | | | | | | | | | | | | |
| 16 | 1235 | 3.1000 | 12.0 | 8.60 | -- | 2 | <0.0200 | <0.0200 | 0.2000 | 0.2300 | 0.2400 | 0.470 |
| 17 | 1910 | 32.9500 | 11.0 | 7.55 | -- | 271 | <0.0200 | <0.0200 | 0.4600 | 1.7900 | 0.5700 | 2.360 |
| 17 | 2045 | 85.0700 | 10.0 | 7.45 | -- | 141 | <0.0200 | <0.0200 | 0.3400 | 0.8800 | 0.5500 | 1.430 |
| 17 | 2240 | 49.5700 | 11.0 | 7.50 | -- | 127 | <0.0200 | <0.0200 | 0.5300 | 0.8900 | 0.6600 | 1.550 |
| 18 | 0700 | 17.0000 | 9.5 | 7.65 | -- | 31 | <0.0200 | <0.0200 | 0.4800 | 0.6700 | 0.7700 | 1.440 |
| 18 | 1840 | 9.2000 | -- | -- | -- | 3 | <0.0200 | <0.0200 | 0.3000 | 0.4200 | 0.8100 | 1.230 |
| December | | | | | | | | | | | | |
| 05 | 1200 | 307.0000 | 8.0 | 7.70 | -- | 72 | 0.0200 | 0.0600 | 0.3500 | 0.5300 | 1.1700 | 1.700 |
| 21 | 1225 | 84.0000 | 5.0 | 7.80 | -- | 86 | 0.0200 | 0.1000 | 0.2500 | 0.6300 | 0.7000 | 1.330 |

TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 1992 | | | | | | | | | | | | |
| 04 | 1100 | 0.010 | 0.030 | 0.190 | 10.4000 | -- | -- | -- | -- | -- | -- | -- |
| 04 | 1210 | 0.004 | 0.020 | 0.070 | 3.2000 | <0.5000 | 1.1200 | 1.7400 | <0.2000 | 2.0300 | 3.7500 | 14.4000 |
| 04 | 1315 | 0.020 | 0.040 | 0.150 | 7.0000 | -- | -- | -- | -- | -- | -- | -- |
| 04 | 1615 | 0.020 | 0.040 | 0.120 | 6.6000 | -- | -- | -- | -- | -- | -- | -- |
| 04 | 2015 | 0.020 | 0.030 | 0.090 | 6.6000 | -- | -- | -- | -- | -- | -- | -- |
| 05 | 0215 | 0.020 | 0.030 | 0.070 | 6.4000 | -- | -- | -- | -- | -- | -- | -- |
| 05 | 0950 | -- | 0.020 | 0.030 | 3.6000 | -- | -- | -- | -- | -- | -- | -- |
| 06 | 1000 | -- | 0.020 | 0.020 | 2.5000 | <0.5000 | 2.9700 | 2.8200 | <0.2000 | 0.4130 | 14.9500 | 14.9900 |
| 16 | 1245 | -- | <0.020 | 0.020 | 2.2000 | 9.1000 | 1.0300 | 0.8840 | <0.2000 | 0.3010 | 1.6300 | 2.9900 |
| February | | | | | | | | | | | | |
| 10 | 1130 | -- | 0.020 | 0.020 | 1.9000 | 1.0000 | 1.1500 | 1.1340 | <0.2000 | <0.2000 | 3.3200 | 4.2500 |
| March | | | | | | | | | | | | |
| 11 | 0145 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0200 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0215 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0245 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0315 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0330 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0345 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0415 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0430 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0445 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March 1992 | | | | | | | | | | | | |
| 11 | 0515 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0535 | 0.010 | 0.030 | 1.480 | 13.4000 | <0.5000 | 3.6100 | 23.1000 | 0.5970 | 62.8000 | 3.7700 | 187.0000 |
| 11 | 0545 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0600 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0615 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0630 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0645 | 0.020 | 0.030 | 0.770 | 13.5000 | <0.5000 | 4.6200 | 16.2000 | 0.2550 | 33.9000 | 3.3000 | 118.0000 |
| 11 | 0700 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0730 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0745 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0800 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0815 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0830 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0845 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0900 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0945 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1015 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1030 | 0.020 | 0.040 | 0.200 | 7.8000 | <0.5000 | 3.2200 | 4.8200 | 0.7040 | 5.9800 | 7.6300 | 30.2000 |
| 11 | 1045 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1115 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1130 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1145 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1200 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1215 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

# TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March 1992 | | | | | | | | | | | | |
| 11 | 1230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1245 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1315 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1330 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1345 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1415 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1430 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1445 | 0.010 | 0.030 | 0.110 | 5.4000 | <0.5000 | 5.4200 | 5.4200 | 0.7000 | 2.1800 | 13.5000 | 15.4000 |
| 12 | 0700 | 0.010 | 0.020 | 0.040 | 3.0000 | <0.5000 | 1.2100 | 1.5000 | <0.2000 | 0.6140 | 4.3300 | 7.7400 |
| 13 | 1245 | 0.010 | 0.020 | 0.030 | 2.3000 | <0.5000 | <0.8000 | 1.0800 | <0.2000 | 0.7350 | 2.9100 | 5.7300 |
| 25 | 1350 | -- | 0.020 | 0.030 | 2.0000 | <0.5000 | 1.2100 | 1.2100 | <0.2000 | 0.2000 | 6.1300 | 7.5200 |
| April | | | | | | | | | | | | |
| 20 | 1210 | -- | 0.020 | 0.020 | 2.2000 | <0.5000 | 0.8200 | 0.9050 | <0.2000 | <0.2000 | 1.1210 | 1.8500 |
| May | | | | | | | | | | | | |
| 12 | 1040 | -- | 0.020 | 0.020 | 2.4000 | <0.5000 | 1.3500 | 1.3500 | -- | 0.3540 | 1.6100 | 1.8100 |
| 30 | 1925 | 0.010 | 0.030 | 0.080 | 3.8000 | <0.5000 | 0.9410 | 2.3600 | <0.2000 | 7.8140 | 7.4300 | 36.3000 |
| 30 | 2040 | 0.010 | 0.030 | 0.160 | 3.7000 | <0.5000 | 0.8380 | 3.5700 | <0.2000 | 16.6400 | 3.4200 | 41.6000 |
| 30 | 2255 | 0.020 | 0.040 | 0.310 | 5.2000 | <0.5000 | <0.8000 | 6.3700 | <0.2000 | 12.8000 | 2.1700 | 48.3000 |
| 31 | 0030 | 0.010 | 0.030 | 0.160 | 4.5000 | <0.5000 | 0.9460 | 3.7900 | <0.2000 | 6.5200 | 2.0100 | 34.7000 |
| 31 | 0650 | 0.010 | 0.040 | 0.140 | 5.7000 | <0.5000 | 1.2000 | 3.7700 | <0.2000 | 5.0400 | 3.5700 | 37.9000 |
| 31 | 1910 | 0.010 | 0.030 | 0.050 | 5.6000 | <0.5000 | 1.0500 | 1.6900 | <0.2000 | 0.9000 | 2.3500 | 0.7000 |
| June | | | | | | | | | | | | |
| 18 | 1120 | 0.010 | 0.020 | 0.040 | 2.5000 | <0.5000 | 1.0300 | 1.0300 | <0.2000 | <0.2000 | 1.6900 | 1.6900 |

TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| July 1992 | | | | | | | | | | | | |
| 03 | 1745 | 0.310 | 0.340 | 0.500 | 5.8000 | <0.5000 | 1.4700 | 4.1900 | 0.5100 | 19.7000 | 7.0200 | 53.0000 |
| 03 | 1900 | 0.030 | 0.050 | 0.210 | 4.6000 | <0.5000 | 0.8400 | 3.8300 | <0.2000 | 7.0100 | 11.0000 | 40.0000 |
| 03 | 2100 | -- | 0.020 | 0.090 | 5.3000 | <0.5000 | 1.1500 | 2.2600 | 0.8000 | 2.5100 | 3.5500 | 16.5000 |
| 04 | 0445 | 0.020 | 0.050 | 0.290 | 5.6000 | -- | -- | -- | -- | -- | -- | -- |
| 04 | 0530 | 0.020 | 0.040 | 0.190 | 6.0000 | -- | -- | -- | -- | -- | -- | -- |
| 04 | 0750 | 0.020 | 0.040 | 0.180 | 6.1000 | <0.5000 | 1.1800 | 3.9100 | <0.2000 | 6.3800 | 2.1900 | 25.7000 |
| 04 | 2000 | 0.020 | 0.040 | 0.070 | 4.5000 | -- | -- | -- | -- | -- | -- | -- |
| 04 | 2005 | 0.019 | 0.036 | 0.070 | 4.5000 | <0.5000 | 1.1300 | 1.5000 | 0.2900 | 1.2200 | 3.0300 | 7.7800 |
| 29 | 1100 | 0.010 | 0.030 | 0.030 | 2.8000 | 1.0000 | 1.6500 | 1.0200 | <0.2000 | 0.2100 | 2.7600 | 3.5400 |
| August | | | | | | | | | | | | |
| 19 | 1340 | -- | -- | 0.050 | 3.3000 | <0.5000 | 0.9070 | 1.2200 | <0.2000 | 0.6780 | <1.0000 | 2.8600 |
| 28 | 1845 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 1900 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 1915 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 1930 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 1935 | 0.060 | 0.100 | 1.560 | 7.5000 | <0.5000 | 2.2500 | 24.0000 | 0.3250 | 42.0000 | 2.1500 | 195.0000 |
| 28 | 1945 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2015 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2030 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2045 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2055 | 0.050 | 0.080 | 0.920 | 7.1000 | 0.8000 | 1.7100 | 15.0000 | 0.2260 | 27.8000 | 2.6000 | 166.0000 |
| 28 | 2100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2115 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2130 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2145 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

## TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| August 1992 | | | | | | | | | | | | |
| 28 | 2200 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2205 | 0.060 | 0.090 | 0.700 | 8.0000 | <0.5000 | 2.1300 | 11.5000 | 0.3020 | 13.6000 | 2.6800 | 117.0000 |
| 28 | 2215 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2245 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2315 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2330 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2335 | 0.060 | 0.090 | 0.440 | 7.8000 | <0.5000 | 1.9900 | 7.9300 | <0.2000 | 9.3400 | 2.6200 | 62.8000 |
| 28 | 2345 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 2400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 29 | 0830 | 0.030 | 0.070 | 0.170 | 5.5000 | <0.5000 | 2.3500 | 4.0000 | -- | 3.0300 | 2.4200 | 18.7000 |
| 29 | 1730 | 0.020 | 0.050 | 0.120 | 5.2000 | <0.5000 | 1.6500 | 2.9900 | <0.2000 | 2.0000 | 2.0800 | 12.9000 |
| 30 | 1410 | 0.020 | 0.040 | 0.090 | 4.5000 | 0.6000 | 1.5700 | 2.4700 | <0.2000 | 1.4100 | 12.2000 | 2.2000 |
| September | | | | | | | | | | | | |
| 21 | 1005 | 0.010 | 0.020 | 0.030 | 2.4000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | 0.2070 | 1.4500 | 2.1300 |
| 25 | 1900 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25 | 1930 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25 | 2000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25 | 2037 | -- | 0.050 | 0.140 | 4.7000 | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0030 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0107 | 0.030 | 0.060 | 0.480 | 7.5000 | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0145 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0200 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0215 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0322 | 0.020 | 0.090 | 0.470 | 6.7000 | -- | -- | -- | -- | -- | -- | -- |

## TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| September 1992 | | | | | | | | | | | | |
| 26 | 0400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0430 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0522 | 0.020 | 0.090 | 0.300 | 7.2000 | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0600 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0630 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0700 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0730 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0807 | 0.040 | 0.080 | 0.220 | 7.5000 | -- | -- | -- | -- | -- | -- | -- |
| 26 | 0945 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 1045 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 1145 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | 1307 | 0.050 | 0.090 | 0.160 | 7.4000 | -- | -- | -- | -- | -- | -- | -- |
| 26 | 1315 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| October | | | | | | | | | | | | |
| 09 | 1922 | 0.020 | 0.060 | 0.620 | 11.0000 | -- | -- | -- | -- | -- | -- | -- |
| 09 | 2022 | 0.004 | 0.060 | 0.960 | 11.0000 | -- | -- | -- | -- | -- | -- | -- |
| 09 | 2122 | 0.020 | 0.070 | 0.500 | 10.5000 | -- | -- | -- | -- | -- | -- | -- |
| 15 | 0915 | 0.003 | 0.030 | 0.030 | 2.4000 | 0.5900 | <0.8000 | 0.8400 | <0.2000 | 0.3200 | 2.3300 | 8.4400 |
| November | | | | | | | | | | | | |
| 18 | 1210 | 0.002 | 0.020 | 0.020 | 2.0000 | <0.5000 | 0.9600 | 0.9600 | <0.2000 | 0.1900 | 3.1200 | 3.1200 |
| 22 | 2330 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23 | 0030 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23 | 0130 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23 | 0230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23 | 0330 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23 | 0430 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Phosphorus, Ortho, Dissolved mg/l as P (00671) | Phosphorus, Dissolved mg/l as P (00666) | Phosphorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recoverable µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recoverable µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recoverable µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| November 1992 | | | | | | | | | | | | |
| 23 | 0530 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23 | 0630 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23 | 0730 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23 | 0830 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23 | 0930 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23 | 1100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| December | | | | | | | | | | | | |
| 09 | 1130 | 0.004 | 0.020 | 0.020 | 1.9000 | 0.5600 | 3.3000 | 3.6200 | <0.2000 | <0.2000 | 2.7800 | 3.4500 |
| 17 | 0610 | 0.003 | 0.020 | 0.140 | 2.5000 | <0.5000 | <0.8000 | 6.8900 | 5.8000 | 5.8000 | 9.3200 | 59.9000 |
| 17 | 0905 | 0.002 | 0.030 | 0.120 | 3.8000 | <0.5000 | <0.8000 | 1.9700 | 3.8000 | 3.8000 | 6.0100 | 25.1000 |
| 17 | 1105 | 0.004 | 0.040 | 0.180 | 5.5000 | <0.5000 | 1.4700 | 3.9300 | 3.8000 | 3.8000 | 27.9000 | 80.9000 |
| 17 | 1345 | 0.010 | 0.040 | 0.140 | 6.1000 | <0.5000 | <0.8000 | 3.8600 | 2.5000 | 2.5000 | 6.1700 | 32.0000 |
| 17 | 1715 | 0.010 | 0.040 | 0.100 | 5.6000 | <0.5000 | <0.8000 | 1.5200 | 0.5000 | 0.5000 | 8.6200 | 20.2000 |
| 18 | 0615 | 0.010 | 0.030 | 0.050 | 3.2000 | <0.5000 | <0.8000 | 1.3400 | <0.2000 | <0.2000 | 6.2600 | 11.8000 |
| 19 | 1430 | 0.003 | 0.020 | 0.030 | 2.2000 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | <0.2000 | 3.1100 | 8.8900 |
| January 1993 | | | | | | | | | | | | |
| 11 | 1140 | -- | 0.020 | 1.340 | 1.8000 | -- | -- | -- | -- | -- | -- | -- |
| February | | | | | | | | | | | | |
| 09 | 1230 | -- | 0.020 | 0.030 | 1.9000 | 0.5300 | <0.8000 | <0.8000 | <0.2000 | 0.3000 | 1.2900 | 3.7200 |
| March | | | | | | | | | | | | |
| 04 | 1030 | -- | 0.020 | 0.180 | 4.1000 | -- | -- | -- | -- | -- | -- | -- |
| 04 | 1345 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04 | 1545 | -- | 0.030 | 0.520 | 8.4000 | -- | -- | -- | -- | -- | -- | -- |
| 04 | 1730 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 04 | 2030 | 0.010 | 0.030 | 0.220 | 5.6000 | -- | -- | -- | -- | -- | -- | -- |
| 05 | 1020 | -- | 0.030 | 0.070 | 4.0000 | -- | -- | -- | -- | -- | -- | -- |

TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March 1993 | | | | | | | | | | | | |
| 06 | 1235 | -- | 0.020 | 0.040 | 3.0000 | -- | -- | -- | -- | -- | -- | -- |
| 22 | 1315 | 0.010 | 0.010 | 0.020 | 1.6000 | -- | -- | -- | -- | -- | -- | -- |
| April | | | | | | | | | | | | |
| 10 | 1600 | -- | 0.030 | 0.320 | 5.7000 | -- | -- | -- | -- | -- | -- | -- |
| 10 | 1700 | -- | 0.040 | 0.760 | 5.7000 | -- | -- | -- | -- | -- | -- | -- |
| 10 | 1800 | -- | 0.040 | 0.730 | 3.5000 | -- | -- | -- | -- | -- | -- | -- |
| 10 | 1900 | -- | 0.050 | 0.430 | 5.4000 | -- | -- | -- | -- | -- | -- | -- |
| 10 | 2000 | 0.010 | 0.040 | 0.300 | 5.2000 | -- | -- | -- | -- | -- | -- | -- |
| 10 | 2100 | -- | 0.040 | 0.450 | 4.9000 | -- | -- | -- | -- | -- | -- | -- |
| 10 | 2200 | -- | 0.040 | 0.300 | 5.0000 | -- | -- | -- | -- | -- | -- | -- |
| 10 | 2300 | -- | 0.030 | 0.240 | 4.7000 | -- | -- | -- | -- | -- | -- | -- |
| 10 | 2400 | -- | 0.030 | 0.200 | 4.5000 | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0100 | -- | 0.040 | 0.150 | 4.6000 | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0200 | -- | 0.040 | 0.150 | 4.7000 | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0300 | -- | 0.040 | 0.150 | 4.1000 | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0400 | -- | 0.040 | 0.090 | 3.8000 | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0500 | -- | 0.030 | 0.110 | 3.7000 | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0600 | -- | 0.030 | 0.090 | 3.5000 | -- | -- | -- | -- | -- | -- | -- |
| 11 | 0700 | -- | 0.030 | 0.090 | 3.4000 | -- | -- | -- | -- | -- | -- | -- |
| 28 | 1240 | -- | 0.020 | 0.020 | 2.1000 | <0.5000 | 0.9840 | 0.9840 | <0.2000 | 0.3370 | 2.1300 | 5.3700 |
| May | | | | | | | | | | | | |
| 05 | 1125 | -- | <0.020 | 0.070 | 6.6000 | <0.5000 | 1.9200 | 2.7000 | 0.2300 | 2.2570 | 4.1800 | 14.9000 |
| 05 | 1945 | -- | 0.030 | 0.260 | 6.9000 | <0.5000 | 1.8400 | 6.3600 | 0.3080 | 10.8000 | 2.0800 | 50.5000 |
| 05 | 2110 | -- | 0.020 | 0.130 | 5.5000 | <0.5000 | 1.3900 | 4.1900 | 0.2530 | 5.9600 | 2.2600 | 33.0000 |
| 05 | 2325 | -- | 0.020 | 0.190 | 7.3000 | <0.5000 | 1.8700 | 5.5000 | 0.2530 | 5.9300 | 3.0000 | 42.9000 |
| 06 | 0615 | -- | 0.020 | 0.060 | 6.0000 | <0.6000 | 1.5400 | 2.4700 | 0.2780 | 1.7100 | 3.7200 | 13.9000 |

## TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Phos-phorus, Ortho, Dissolved mg/l as P (00671) | Phos-phorus, Dissolved mg/l as P (00666) | Phos-phorus, Total mg/l. as P (00665) | Carbon, Organic, Total mg/l as C (00680) | Oil and Grease, Total, Recoverable Electrometric mg/l (00560) | Copper, Dissolved µg/l as Cu (01040) | Copper, Total, Recover-able µg/l (01119) | Lead, Dissolved µg/l as Pb (01049) | Lead, Total, Recover-able µg/l (01114) | Zinc, Dissolved µg/l as Zn (01090) | Zinc, Total, Recover-able µg/l (01094) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| May 1993 | | | | | | | | | | | | |
| 06 | 1545 | -- | 0.020 | 0.030 | 3.5000 | <0.5000 | 1.4700 | 1.5800 | <0.2000 | 0.6300 | 1.6800 | 5.2700 |
| 07 | 1000 | -- | 0.020 | 0.030 | 1.3200 | <0.5000 | 1.3200 | 1.3200 | 0.2300 | 0.4200 | 1.8100 | 3.9100 |
| 18 | 1205 | -- | 0.020 | 0.030 | 2.5200 | <0.5000 | <0.8000 | <0.8000 | <0.2000 | 0.3400 | 1.2800 | 3.4200 |
| June | | | | | | | | | | | | |
| 20 | 2022 | 0.020 | 0.050 | 2.200 | 7.6700 | -- | -- | -- | -- | -- | -- | -- |
| 20 | 2122 | 0.010 | 0.040 | 0.900 | 7.7000 | -- | -- | -- | -- | -- | -- | -- |
| 20 | 2222 | 0.010 | 0.050 | 0.300 | 7.4000 | -- | -- | -- | -- | -- | -- | -- |
| 21 | 1000 | 0.010 | 0.040 | 0.140 | 6.7000 | -- | -- | -- | -- | -- | -- | -- |
| 23 | 1315 | 0.020 | 0.030 | 0.080 | 3.3000 | -- | -- | -- | -- | -- | -- | -- |
| July | | | | | | | | | | | | |
| 02 | 0950 | -- | 0.030 | 0.180 | 4.6000 | 0.5700 | 1.1800 | 5.1300 | 0.2330 | 21.6000 | 4.1400 | 57.9000 |
| 02 | 1120 | -- | 0.030 | 0.200 | 3.7000 | <0.5000 | 0.8000 | 5.1700 | <0.2000 | 7.9700 | 1.1500 | 44.0000 |
| 02 | 1305 | -- | 0.040 | 0.080 | 5.1000 | <0.5000 | 1.2300 | 4.4000 | <0.2000 | 8.4500 | 1.5400 | 40.8000 |
| 02 | 1500 | -- | 0.040 | 0.290 | 5.6000 | 1.2000 | 1.3200 | 6.3200 | <0.2000 | 10.1000 | 1.0900 | 54.9000 |
| 02 | 1725 | -- | 0.050 | 0.260 | 6.3000 | 0.9100 | 1.7500 | 6.7400 | <0.2000 | 9.6600 | 2.5400 | 56.7000 |
| 02 | 1900 | 0.020 | 0.060 | 0.120 | 7.1000 | 0.7700 | 1.9600 | 4.6300 | <0.2000 | 5.1800 | 3.0200 | 29.5000 |
| 03 | 1040 | 0.010 | 0.040 | 0.070 | 5.5000 | <0.5000 | 1.5800 | 2.1700 | <0.2000 | 1.3500 | 1.7400 | 8.4900 |
| 15 | 1150 | 0.010 | 0.020 | 0.020 | 2.7000 | <0.5000 | 0.9010 | 1.0300 | <0.2000 | 0.2770 | 1.3300 | 2.3500 |
| August | | | | | | | | | | | | |
| 02 | 1320 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 19 | 1530 | 0.020 | 0.020 | 0.020 | 2.7000 | <0.5000 | 0.8800 | 1.5100 | <0.2000 | 0.4600 | 0.8500 | 3.6700 |
| September | | | | | | | | | | | | |
| 29 | 1310 | 0.020 | 0.030 | 0.040 | 3.3000 | 0.8600 | 1.2800 | 1.4200 | <0.2000 | 0.3970 | 1.8700 | 2.8400 |
| October | | | | | | | | | | | | |
| 20 | 1230 | -- | 0.030 | 0.030 | 3.4000 | <0.5000 | 2.3300 | 0.6400 | 0.2300 | 0.3800 | 1.6100 | 1.6100 |

TABLE A6. Paxton Creek Near Penbrook, Pa. (01571000) (Continued)

| Date | Time | Phosphorus, Ortho, Dissolved | Phosphorus, Dissolved | Phosphorus, Total | Carbon, Organic, Total | Oil and Grease, Total, Recoverable Electrometric | Copper, Dissolved | Copper, Total, Recoverable | Lead, Dissolved | Lead, Total, Recoverable | Zinc, Dissolved | Zinc, Total, Recoverable |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mg/l as P (00671) | mg/l as P (00666) | mg/l. as P (00665) | mg/l as C (00680) | mg/l (00560) | µg/l as Cu (01040) | µg/l (01119) | µg/l as Pb (01049) | µg/l (01114) | µg/l as Zn (01090) | µg/l (01094) |
| November 1993 | | | | | | | | | | | | |
| 16 | 1235 | -- | 0.020 | 0.040 | 3.1000 | -- | 0.9700 | 1.0700 | <0.2000 | <0.2000 | <1.0000 | 1.5000 |
| 17 | 1910 | 0.030 | 0.080 | 0.370 | 7.1000 | <0.5000 | 1.4100 | 9.3900 | 0.3000 | 22.6000 | 5.7200 | 98.0000 |
| 17 | 2045 | -- | 0.030 | 0.180 | 5.6000 | <0.5000 | 1.1000 | 3.7200 | 0.2600 | 5.1600 | 3.1600 | 27.7000 |
| 17 | 2240 | 0.010 | 0.050 | 0.210 | 8.2000 | <0.5000 | 1.9200 | 5.0500 | 1.7000 | 9.8400 | 8.4900 | 35.5000 |
| 18 | 0700 | -- | 0.040 | 0.090 | 7.5000 | <0.5000 | 1.6400 | 2.6800 | 0.4000 | 2.0200 | 3.4500 | 12.1000 |
| 18 | 1840 | -- | 0.020 | 0.040 | 5.5000 | <0.5000 | 1.4100 | 1.7800 | 0.2100 | 0.8000 | 3.1300 | 5.1400 |
| December | | | | | | | | | | | | |
| 05 | 1200 | 0.030 | 0.060 | 0.100 | 6.6000 | -- | -- | -- | -- | -- | -- | -- |
| 21 | 1225 | -- | 0.040 | 0.110 | 5.5000 | -- | 1.3300 | 3.3000 | <0.2000 | 3.4500 | 3.5400 | 24.2000 |

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